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COELENTERATA

COMPILED BY

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4. COELENTERATA

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CONTENTS

	PAGE
I. TITLES	1
II. SUBJECT INDEX	11
III. SYSTEMATIC INDEX	15
Hydrozoa, p. 15 ; Graptolithina, p. 18 ; Scyphozoa, p. 20 ; Anthozoa, p. 20 ; Ctenophora, p. 26 ; Incertae Sedis, p. 26.	

I.—TITLES

1.—Allan, P. *Craspedacusta sowerbii* in Maryland. Proc. biol. Soc. Wash. **65** 1952 : 109.

2.—Alloiteau, J. Sur le genre *Diploctenium* Goldf. dans le Crétacé supérieur français. Bull. Soc. géol. Fr. **6** 2 7-9 1953 (for 1952) : 537-574 pls. 19, 20 text-figs.

3.—Amor, J. M. & Martinez, V. G. Nueva contribución al estudio de los "*Aspidiscus*" españoles. Bol. Soc. esp. Hist. nat. Geol. **50** 1 1952 : 117-119 1 pl.

Andelković, M. see Marković, O.

4.—Astre, G. *Cyclolites* de gisements campaniens de Catalogne. Bull. Soc. Hist. nat. Toulouse **87** 3-4 1952 : 259-267 text-figs.

5.—Atoda, K. Asexual reproduction in some young reef corals of Scleractinidae. Sci. Rep. Tôhoku Univ. (4) **19** 2 1951 : 178-186 pl. 2 text-fig.

6.—Atoda, K. The larva and post-larval development of the reef-building coral. Sci. Rep. Tôhoku Univ. (4) **20** 1 1953 : 105-121 text-figs.

7.—Barnes, V. E., Cloud, Jnr., P. E. & Duncan, H. Upper Ordovician of Central Texas. Bull. Amer. Assoc.

Petrol. Geol. **37** 5 1953 : 1030-1043 text-figs.

8.—Bass, N. W. & Northrop, S. A. Dotsero and Manitou formations, White River Plateau, Colorado, with Special Reference to Clinetop Algal Limestone Member of Dotsero Formation. Bull. Amer. Assoc. Petrol. Geol. **37** 5 1953 : 889-912 text-figs.

Bassindale, R. see Lilly, S. J.

9.—Bayer, F. M. Zoogeography and evolution in the Octocorallian family Gorgoniidae. Bull. mar. Sci. Gulf & Caribbean **3** 2 1953 : 100-119 text-figs.

Bennett, I. see Dakin, W. J.

10.—Berland, O. P. Harmless or Deadly? Nat. Hist. N.Y. **62** 9 1953 : 402-407 text-figs.

11.—Berner, L. *Adamsia palliata* Boh. et *Eupagurus prideauxi* Leach, couple biologique. Bull. Soc. zool. Fr. **78** 2-3 1953 : 221-226.

12.—Berrill, N. J. Growth and form in gymnoblastic hydroids. VI. Polymorphism within the Hydractiniidae. J. Morph. **92** 2 1953 : 241-272 text-figs.

13.—Berrill, N. J. Growth and form in gymnoblastic hydroids. Growth and reproduction in *Syncoryne* and *Coryne*. J. Morph. **92** 1953 : 273-302 text-figs.

- Besley, M. A. *see* Salter, K. E. W.
- 14.—Black, W. W. Critical Sections in a Carboniferous Reef Knoll. *Geol. Mag.* 90 5 1953 : 345-352 text-figs.
- 15.—Blake, S. F. The Pleistocene fauna of Wailes bluff and Langleys bluff, Maryland. *Smithson. misc. Coll.* 121 12 1953 : 1-32 pl. 1 text-fig.
- 16.—Bohlin, B. The Affinities of the Graptolites. *Bull. geol. Inst. Univ. Upsala* 34 (1949-53) 1953 : 107-113 text-figs.
- 17.—Borrello, A. V. & Gareca, P. G. Sobre la Presencia de *Nemagraptus gracilis* (Hall) en el Ordovicio del Norte de San Juan. *Revist. Asoc. geol. Argentina* 6 3 1951 : 187-193 text-figs. 1-4.
- 18.—Boschma, H. Over enkele noorsche korallen. *Versl. gewone Vergad. Akad. Amst.* 62 4 1953 : 32-35.
- 19.—Boschma, H. Notes on specimens of *Stylaster mooraboolensis* (Hall) in the collection of the Manchester Museum. *Proc. Acad. Sci. Amst.* 56B 4 1953 : 355-363 pl. opp. p. 362 text-figs.
- 20.—Boschma, H. Linnaeus's description of the Stylasterine coral *Errina aspera*. I, II. *Proc. Acad. Sci. Amst.* 56C 3 1953 : 301-316 text-figs.
- 21.—Boschma, H. The Stylasterina of the Pacific. *Zool. Meded. Leiden* 32 (16) 1953 : 165-184.
- 22.—Boschma, H. On specimens of the Coral Genus *Tubastraea*, with notes on Phenomena of Fission. *Stud. Fauna Curaçao & other Caribbean Islands* 4 18 1953 : 109-119 pls. 9-12.
- 23.—Bouček, B. & Münch, A., p. 21 in Příbyl, A., Bibliographic Index of Bohemian Silurian Graptolites. *Knihovna stat. geol. úst. CSR.* 22 1948 : 1-96 2 tables.
- 24.—Bouček, B. & Münch, A. The Central European Retiolites of the Upper Wenlock and Ludlow. *Sborn. geol. Úst. čsl. paleont.* 19 1952 : 1-151 pl. 1 text-figs. [Czech with Russian and English translations.]
- 25.—Bouček, B. & Příbyl, A., p. 37 in Příbyl, A., Bibliographic Index of Bohemian Silurian Graptolites. *Knihovna stat. geol. úst. CSR.* 22 1948 : 1-96 2 tables.
- 26.—Bouček, B. & Příbyl, A. O některých tenkých druzích rodu *Monograptus*, zvláště z podrodů *Globosograptus* a *Mediograptus* [summary]. *Věstn. čes. Akad.* 60 1951 : 63. [Czech only—*see also* entry 28.]
- 27.—Bouček, B. & Příbyl, A. Taxonomie a kmenový vývoj některých ordovických graptolitů [summary]. *Věstn. čes. Akad.* 60 1951 : 80-81. [Czech only—*see also* entry 29.]
- 28.—Bouček, B. & Příbyl, A. On some Slender Species of the Genus *Monograptus* Geinitz, especially of the Subgenera *Mediograptus* and *Globosograptus*. *Bull. int. Acad. Prague* 52 1 (for 1951) 1953 : 185-216 pls. 1-3 text-figs. [See also entry 26.]
- 29.—Bouček, B. & Příbyl, A. Taxonomy and Phylogeny of some Ordovician Graptolites. *Bull. int. Acad. Prague* 52 1 (for 1951) 1953 : 267-283 text-figs. [See also entry 27.]
- 30.—Bouček, B. & Příbyl, A. On the Genus *Diversograptus* Manck from the Silurian of Bohemia. *Sborn. ustř. Úst. geol.* 20 1953 : 485-576 pls. 37-39 (1-3). [Czech with English and Russian summaries.]
- 31.—Bougis, P. & Gabis, V. Observations écologiques sur les variétés vertes et rouges d'*Actinia equina* L. *Vie et Milieu* 3 4 1952 : 448-450.
- 32.—Bourdillon, A. Note préliminaire sur diverses réactions parasitaires d'un hydroïde aux larves de Pycnogonides. *Rec. Trav. Sta. mar. Endoume* No. 6 1952 : 19-26 pls. 2, 3.
- 33.—Braams, W. G. & Geelen, H. F. M. The preference of some nudibranchs for certain coelenterates. *Arch. neerl. Zool.* 10 3 1953 : 241-264.
- 34.—Brien, P. La pérennité somatique. *Biol. Rev.* 28 3 1953 : 308-349 text-figs. [French with English summary.]
- 35.—Brien, P. Homéogreffes entre fragments d'hydres normales et d'hydres irradiées. *C.R. Acad. Sci. Paris* 237 16 1953 : 938-940.
- 36.—Brien, P. & Eeckhoudt, J.-P. Van Den. Bourgeonnement et régénération chez les Hydres irradiées par les rayons X. *C.R. Acad. Sci. Paris* 237 14 1953 : 756-758.

- 37.—Brien, P. & Reniers-Decoen, M. Etude d'*Hydra viridis* (Linnaeus) (La Blastogénèse, la Spermatogénèse, l'Ovogénèse). Ann. Soc. zool. Belg. 81 (for 1950) 1951 : 33-110 text-figs. 3 graphs.
- 38.—Bryan, E. H., Jr. Check List of Atolls. Atoll Res. Bull. No. 19 1953 : 1-38.
- 39.—Buddenbrock, W. v. Vergleichende Physiologie. Band 2: Nervenphysiologie, Basel (Verlag Birkhäuser) 1953 : 1-396 text-figs. [Coelenterates pp. 81-105.]
- 40.—Bulman, O. M. B. On the thecae of *Monograptus scanicus* Tullberg. Geol. Mag. 90 2 1953 : 131-136 3 figs.
- 41.—Caspers, H. Der tierische Bewuchs an Helgoländer Seetonnen. Helgoländ. wiss. Meeresunters. 4 2 1952 : 138-160 text-figs.
- 42.—Chadwick, C. S. & Houston, H. A "bloom" of fresh water medusae *Craspedocusta ryderi* (Potts) in Kentucky Lake, Tennessee. J. Tenn. Acad. Sci. 23 1 1953 : 36-37.
- 43.—Chapman, G. Studies of the Mesogloea of Coelenterates. I. Histology and Chemical Properties. Quart. J. Micr. Sci. 94 2 1953 : 155-176 2 pls. text-figs.
- 44.—Chapman, G. Studies on the mesogloea of coelenterates. II. Physical properties. J. exp. Biol. 30 3 1953 : 440-451 text-figs.
- 45.—Chaudhari, P. N. & Sohoni, K. Hydrolytic Enzymes in Sea Anemones. Proc. Indian Sci. Congr. 40 3 1953 : 37-238.
- 46.—Christomanos, A. Purple Pigment and Protein in the Threads of the Sea Anemone, *Adamsia rondeleti*. Nature, Lond. 171 4359 1953 : 886-887 text-figs.
- 47.—Clegg, J. *Hydra* and its Relatives, pp. 109-115 in The Freshwater life of the British Isles. London 1952 : -351 pls. 1-67 text-figs.
- Cloud, Jr., P. E. see Barnes, V. E.
- 48.—Cooke, C. W. Pleistocene Corals, Lake North, Florida. Science 117 3042 1953 : 440.
- Cooper, G. A. see Duncan, H.
- 49.—Cornet, A., Galmier, D. & Lucas, J. Sur l'âge liasique de la riche faune Polypiers, dite "sénoniennne," de la Zerga (région d'Ain Sefra, Atlas Saharien occidental). C.R. Acad. Sci. Paris 237 4 1953 : 345-347.
- 50.—Crowell, S. The Regression-Replacement Cycle of Hydranths of *Obelia* and *Campanularia*. Physiol. Zool. 26 4 1953 : 319-327 text-figs.
- 51.—Dahl, E. The Narcomedusa *Halammohydra octopodides* Remane new to Sweden. K. fisiogr. Sällsk. Lund Förh. 22 18 1952 : 112-113.
- 52.—Dahmer, G. Graptolithen aus den "Grauen Phylliten" des Taunus. Notizbl. hess. Landesamt. Bodenforsch. 6 3 1952 : 82-86 pl. 15.
- 53.—Dakin, W. J. & Others. Australia seashores. A guide for the beach-lover, the naturalist, the shore fisherman, and the student. London (Angus & Robertson) 1953 : i-xii, 1-372 frontis. col. pls. 1-99. [Coelenterata pp. 120-139 pls. 21-26.]
- 54.—Dale, N. C. Geology and Mineral Resources of the Oriskany Quadrangle (Rome Quadrangle). Bull. N.Y. St. Mus. No. 345 1953 : 1-197 text-figs. map.
- 55.—Davis, G. H., III. The contact between the Manlius Limestone and the Coeymans Limestone in Upper New York State. Circ. N.Y. St. Mus. No. 35 1953 : 1-31.
- 56.—Dawydoff, C. Contribution à nos connaissances de l'*Hydroctena*. C.R. Acad. Sci. Paris 237 21 1953 : 1301-1302.
- 57.—Decker, C. E. & Huffman, G. G. Sylvan Graptolites in Northeastern Oklahoma. Bull. Amer. Assoc. Petrol. Geol. 37 2 1953 : 451-452 2 figs.
- Dias, M. V. see Pantin, C. F. A.
- 58.—Donovan, D. T. De Danske Ekspeditioner til Østgrønland 1947-52. The Jurassic and Cretaceous Stratigraphy and Palaeontology of Traill Ø, East Greenland. Medd. Grønland 111 4 1953 : 1-150 pls. 1-25 text-figs. [Coral p. 129.]
- Dow, T. see Moore, H. B.
- Dunbar, C. O. see Duncan, H.
- 59.—Duncan, H. Corals, p. 20 in Cooper, G. A., Dunbar, C. O., Duncan, H., Miller, A. K. & Knight, J. B., Permian fauna at El Antimonio, Western Sonora, Mexico. Smithsonian. misc. Coll. 119 2 1953 : i-iv, 1-111 pls. 1-25 text-figs. [Corals p. 20.]

Duncan, H. *see* Barnes, V. E.

60.—Easton, W. H. & Gutschick, R. C. Corals from the Redwall limestone (Mississippian) of Arizona. *Bull. S. Calif. Acad. Sci.* 52 1 1953 : 1-27 pls. 1-3 text-figs.

Ebling, F. J. *see* Lilly, S. J.

Eeckhoudt, J.-P. Van Den *see* Brien, P.

61.—Eguchi, M. Recent and Fossil Corals of the Family Oculinidae from Japan. *J. geol. Soc. Japan* 49 583 1942 : 135-142 pl. 6 (5).

62.—Eguchi, M. Fossil Corals from the Torinosu Limestone of Yamagami, Nisikaseda-Mura, Kawanabe-Gun, Kagosima-Ken. *J. geol. Soc. Japan* 49 583 1942 : 143-147 text-figs. [English with Japanese summary.]

63.—Eguchi, M. [Corals from the Orbitolina Limestone of the Isikari District, Hokkaido, Japan.] *J. geol. Soc. Japan* 51 605 1944 : 69-70 pl. 2. [Japanese with English summary.]

Eguchi, M. *see* Yabe, H.

64.—Ehlers, G. M. & Stumm, E. C. Species of the Tetracoral Genus *Bilingsastraea* from the Middle Devonian of New York and Other Regions. *Bull. Buffalo Soc. nat. Sci.* 21 2 1953 : 1-11 pls. 1-6.

65.—Ehlers, G. M. & Stumm, E. C. A New Species of the Tetracoral Genus *Palastraea* from the Mississippian of Kentucky. *Pap. Mich. Acad. Sci. Arts Lett.* 38 (for 1952) 1953 : 383-386 pl. 1.

66.—Eisenack, A. Retioliten aus dem Graptolithengestein. *Palaeontographica Stuttgart* 100A 1951 : 129-163 pls. 21-25 text-figs.

67.—Eisenack, A. Die Bestimmung des Alters von Kieselschiefer-Geröllen mittels Mikrofossilien. *Senckenbergiana* 34 1-3 1953 : 99-103 pl. 1 text-fig.

68.—Endô, R. A Summary of the Geologic Section in Manchuria. *Sci. Rep. Saitama Univ.* 1B 2 1953 : 105-114. [Lists only.]

69.—Ewer, D. W. On a New Tubularian Hydroid from Natal. *Ann. Natal Mus.* 12 3 1953 : 351-357 text-figs.

70.—Flügel, H. Die stratigraphischen Verhältnisse des Paläozoicums von Graz. *N. Jb. Geol. Paläont.* B2 1953 : 55-92 tables.

71.—Földvári, A. Lead ores and fossiliferous Dinantian (Lower Carboniferous) at Szabadbattyán. *Acta geol. hung.* 1 1-4 1952 : 11-36 pls. 1-9 text-figs. [Coral p. 19 pls. 4, 5.]

72.—Furuhashi, K. On the vertical distribution of animal plankton in the Sea of Japan off San'in district in summer of 1952. *Publ. Seto mar. biol. Lab.* 3 1 1953 : 61-74 text-figs. tables.

Gabis, V. *see* Bougis, P.

Galmier, D. *see* Cornet, A.

Gareca, P. G. *see* Borrello, A. V.

73.—Gautier, Y. & Picard, J. Note sur trois prétendus hydroides. *Rec. Trav. Stat. mar. Endoume* No. 4 1952 : 57-58.

Geelen, H. F. M. *see* Braams, W. G.

74.—Geyer, O. F. Die Korallen-vorkommen in oberen Weissen Jura der Schwäbischen Alb. *Jh. Ver. vaterl. Naturk. Württemb.* 108 1953 : 48-52.

75.—Geyer, O. F. Die Fauna der oolithischen Trümmerkalke des oberen Malm in Württemberg und ihre Beziehungen zur koralligenen Fazies des Tithon. *N. Jb. Geol. Paläont.* B3 1953 : 130-140 fig. table. [Coral list.]

76.—Gigout, M. Etudes géologiques sur la Méséta Marocaine Occidentale (Arrière-pays de Casablanca, Mazagan et Safi). *Trav. Inst. sci. Chérifien* No. 3 1951 : 1-508 pls. i-xviii, 1-9 table. [*See* *Zool. Rec.* 88 4 (for 1951) p. 4 entry 80.]

77.—Glinski, A. Die Freilinger Schichten der Rohrer Mulde (Devon, Eifel). *Senckenbergiana* 34 1-3 1953 : 149-162.

78.—Goldman, A. S. Synthesis of pigment during the reconstitution of *Tubularia*. *Biol. Bull. Woods Hole* 105 3 1953 : 450-465 text-figs.

79.—Grave, E. V. Hydra Catches a Waterflea. *Nat. Hist. N.Y.* 62 9 1953 : 400-401 text-figs.

Graves, R. W. *see* Plumley, W. J.

80.—Guiler, E. R. The Nature of Intertidal Zonation in Tasmania. *Pap. roy. Soc. Tasm.* 86 1952 : 31-61.

Gutschick, R. C. *see* Easton, W. H.

81.—Hadži, J. An Attempt to Reconstruct the System of Animal Classification. *Syst. Zool.* 2 4 1953 : 145-154.

Haeck, M.-Cl. *see* Oye, P. van.

82.—Hassan, M. Y. Tertiary Faunas from Kap Brewster, East Greenland. Medd. Grønland 111 5 1953 : 1-42 pls. A-E text-fig. [Coral p. 14.]

83.—Hauenschild, C. & Kanellis, A. Experimentelle Untersuchungen an Kulturen von *Hydractinia echinata* Flemm. zur Frage der Sexualität und Stockdifferenzierung. Zool. Jb. (Allg. Zool.) 64 1953 : 1-13 pl. 1 text-figs.

84.—Hayasaka, I. & Minato, M. Carboniferous formations in the Japanese Islands. C.R. 3e Congr. Stratigr. Géol. Carbonifère 1 1952 : 267-274.

85.—Hedgpeth, J. W. An Introduction to the Zoogeography of the Northwestern Gulf of Mexico with Reference to the Invertebrate Fauna. Publ. Inst. mar. Sci. Univ. Tex. 3 1 1953 : 107-224 text-figs.

86.—Hegedüs, G. *Trochocyathus majsoni* nov. nom. Földt. Közl. Budapest 82 10/12 1952 : 412-413 text-fig.

87.—Hill, D. The Middle Ordovician of the Oslo Region, Norway. 2. Some Rugose and Tabulate Corals. Norsk geol. Tidsskr. 31 1953 : 143-168 pls. 1-5.

88.—Hobbs, H. H., Jr. & Page, C. H. Additional Records of the Occurrence of the Freshwater Jellyfish, *Craspedacusta sowerbii*, in Virginia. Virginia J. Sci. n.s. 4 3 1953 : 137.

89.—Holtedahl, O. Norges Geologi. Norg. geol. Unders. 164 1 1953 : 178-232 text-figs. 70, 73, 76, 78, 81, 88, 91.

90.—Horridge, A. An Action Potential from the Motor Nerves of the Jellyfish *Aurelia aurita* Lamarck. Nature Lond. 171 4348 1953 : 400.

91.—Horstig, G. von. Neue Graptolithen-Funde in gotländischen Lyditen des Frankenwaldes und ihre Erhaltung in weisser Kieselsäure. Senckenbergiana 33 4-6 1952 : 345-352 text-figs.

Houston, H. *see* Chadwick, C. S.

92.—Hudson, R. G. S. The Systematic Position of the Mesozoic Stromatoporeoid *Cladocoropsis* Felix, 1907. Ann. Mag. Nat. Hist. (12) 6 1953 : 615-619.

93.—Hudson, R. G. S. The stromatoporeoid genus *Millestroma* Gregory. J. Paleont. 27 6 1953 : 884-885.

94.—Huffman, G. G. Sylvan Shale in Northeastern Oklahoma. Bull. Amer. Assoc. Petrol. Geol. 37 2 1953 : 447-450 3 figs.

Huffman, G. G. *see* Decker, C. E.

95.—Huvé, P. Revision des Polypes campanulinides méditerranéens. Rec. Trav. St. mar. Endoume No. 4 1952 : 34-52 8 figs.

96.—Huvé, P. Révision des Polypes Campanulinides méditerranéens. 2me partie. *Dipleuron gracilis* (Clarke) 1882, nouvel *Hydraire* Campanulinide européen. Vie et Milieu 3 4 1952 : 389-396 text-figs.

97.—Huvé, P. Biologie de l'*Hydraire Hypsorophus Quadratus* (Forbes) 1848 en Méditerranée occidentale. Bull. Inst. océanogr. Monaco No. 1019 1953 : 1-11.

98.—Jackson, D. F. *Craspedacusta sowerbii* in Pymatuning Reservoir. Ecology 34 2 1952 : 428-429.

99.—Jaeckel, S. Zur Biologie der Actinie *Amphianthus radiatus* Carlgren und des Brachiopoden *Pelagodiscus atlanticus* King. Zool. Anz. 150 1953 : 38-40 text-fig.

Jones, E. C. *see* Moore, H. B.

100.—[Kanaev, I. I.] [Hydra. Outlines of the biology of fresh-water polyps.] Izd. Akad. Nauk S.S.S.R. Moskva, Leningrad 1952 : 1-370, illust. [Not seen—*see* Translated Contents Lists of Russian Periodicals, D.S.I.R. No. 44 1952 : 94.]

101.—[Kanaev, I. I.] [The problem of unitentacular polyps.] Zool. Zh. Moscow 32 2 1953 : 212-214 text-fig. [Russian only.]

Kanellis, A. *see* Hauenschild, C.

102.—Kanmera, K. The Lower Carboniferous Kakisako formation of Southern Kyushu, with a Description of Some Corals and Fusulinids. Mem. Fac. Sci. Kyushu Univ. D3 4 1952 : 157-177 pls. 8-12 sections.

103.—Kato, K. On a Luminous Hydroid, *Clytia linearis*. Zool. Mag. Tokyo 58 11 1949 : 215-216 text-fig. [Japanese with English résumé.]

104.—Kawaguti, S. An Abundance of Reef-Coral Planulae in Plankton. Zool. Mag. Tokyo 52 1 1940 : 31.

105.—Kirchner, G. Amber inclusions. *Endeavour*, London 9 34 1950 : 70-75 pls. 1-3 1 fig.

Kitching, J. A. *see* Lilly, S. J.

Knight, J. B. *see* Duncan, H.

106.—Kobayashi, T. Concept of Time in Geology, 3. An Instant in the Phanerozoic Eon and its Bearings on Geology and Biology. *Proc. imp. Acad. Japan* 20 10 1944 : 742-750.

107.—Kolosváry, G. Accroissement géant des Thecosmilias. *Föld. Közl. Budapest* 83 (4-6) 1953 : 174-177 text-figs. [Hungarian with Russian and French summaries.]

108.—Vacant.

109.—Kopek, G. Les coraux miocènes de la Slovaquie du Sud. *Geol. sborn. Slovensk. Akad.* 3 1/2 1952 : 69-87 pls.

12-16. [Serbian, with Russian, Hungarian and French summaries.]

110.—Kozłowski, R. Étude d'une nouvelle espèce du genre *Corynoides* (Graptolithina). *Acta geol. polon.* 3 2 1953 : 193-209 text-figs. [Russian and French résumés in *Conspectus* pp. 65-81.]

111.—Kramp, P. L. Hydromedusae. *Sci. Rep. Gr. Barrier Reef Exped.* 6 4 1953 : 259-322 pls. 1, 2 text-figs.

112.—[Krasnii, L. I.] [Devonian fauna in the Shantar Islands.] *C.R. Acad. Sci. URSS N.S.* 93 2 1953 : 333-334. [Russian only.]

113.—Kühne, W. G. The Proscicula of *Retiolites geinitzianus* Barr. *Geol. Mag.* 90 1953 : 444 text-fig.

114.—Kupfahl, H.-G. Untersuchungen im Gotlandium und Unterdevon des Kellerwaldes und bei Marburg. *Notizbl. hess. Landesamt. Bodenforsch.* 81 1953 : 96-128 pl. 6 text-figs.

115.—Kuwabara, M. Die günstigste Ionenszusammensetzung des äusseren Mediums für Hydra, mit besonderer Berücksichtigung der antagonistischen Wirkung von Ca⁺⁺ gegenüber K⁺. *Proc. imp. Acad. Japan* 20 2 1944 : 110-114 text-fig.

116.—Lehmann, F. E. Konkurrenz- und Schwelleneffekte bei der Realisierung von Körper- und Organgestalten. *Rev. suisse Zool.* 60 1953 : 490-496. [German with English summary.]

117.—Lehn, H. Die histologischen Vorgänge bei der Reparation von Hydren aus Aggregaten kleiner Fragmente. *Roux Arch. Entw.-Mech. Organ.* 146 1953 : 371-402 text-figs.

118.—Lewis, J. R. The ecology of rocky shores around Anglesey. *Proc. zool. Soc. Lond.* 123 3 1953 : 481-549 pls. 1-4 text-figs.

119.—Lilly, S. J. & Others. The ecology of the Lough Ine rapids with special reference to water currents. IV. The sedentary fauna of sublittoral boulders. *J. Anim. Ecol.* 22 1953 : 87-122 25 figs.

120.—Lindström, M. On the Lower Chasmops Beds in the Fågelsång District (Scania). *Geol. Fören. Stockholm Förhand.* 75 2 1953 : 125-148 pl. 1 text-figs.

121.—Loomis, W. F. The Cultivation of *Hydra* Under Controlled Conditions. *Science* 117 3047 1953 : 565-566 fig.

Lucas, G. *see* Cornet, A.

122.—Maksimović, B. V. & Marković, B. Nouvelle contribution à la connaissance de l'albien et du cénonanien de la Serbie. Faune de l'albien et du cénonanien des environs de Kadina Luka et de Rajac (Serbie occidentale). *Zborn. Radova geol. Inst. Beograd* 23 5 1953 : 183-210 pls. 1-10 text-figs. [Serbian with French résumé—corals p. 185.]

Marković, B. *see* Maksimović, B. V.

123.—Marković, O. & Anđelković, M. Géologie et tectonique des environs des villages d'Osečenica, Brežde et Struganik (Serbie occidentale). *Zborn. Radova geol. Inst. Beograd* 23 5 1953 : 111-149 pls. 1-10 text-figs. 2 geol. maps. [Serbian with French résumé—corals p. 133.]

Miller, A. K. *see* Duncan, H.

124.—Minato, M. An Occurrence of *Wentzella* [sic] *subtimorica* in Northern Tai. *Proc. imp. Acad. Japan* 20 2 1944 : 104-106 text-figs.

125.—Minato, M. & Others. Biostratigraphie des Karbons im Kitakami-Gebirge, Nordöstliches Honshu, Japan. *J. geol. Soc. Japan* 59 695 1953 : 385-399 pls. 7-9 & tables. [Japanese with German summary—several nom. nud.]

Minato, M. *see* Hayasaka, I.

Minato, M. *see* Yabe, H.

- 126.—Miyawaki, M. Temperature as a Factor Influencing upon the Fission of the Orange-Striped Sea-Anemone, *Diadumene Luciae*. J. Fac. Sci. Hokkaido Univ. (Zool.) 11 1 1952: 77-80 text-figs.
- 127.—Moenke, M. Les Coralliaires des argiles du Tortonien de Bézyn. Acta geol. polon. 3 2 1953: 239-276 text-figs. [Russian and French résumés in Conspectus pp. 89-96.]
- 128.—Molinier, R. & Picard, J. Notes biologiques à propos d'un voyage d'étude sur les côtes de Sicile. Ann. Inst. océanogr. Monaco N.S. 28 4 1953: 163-187 pls. 1-4 text-figs.
- 129.—Monod, T. Coraux Ouest-Africains. Notes afr. No. 46 1950: 60.
- 130.—Moore, H. B. Plankton of the Florida Current. II. Siphonophora. Bull. mar. Sci. Gulf & Caribbean 2 4 1953: 559-573 text-figs.
- 131.—Moore, H. B., Owra, H., Jones, E. C. & Dow, T. Plankton of the Florida Current. III. The control of the vertical distribution of zooplankton in the daytime by light and temperature. Bull. mar. Sci. Gulf & Caribbean 3 2 1953: 83-95 text-fig.
- Müller, I. see Pax, F.
- 132.—Münch, A. Bestimmung und Einstufung von Graptolithen aus gotlandischen Lyditen des Frankenwaldes. Senckenbergiana 33 4-6 1952: 353-355 text-figs.
- Münch, A. see Bouček, R.
- 133.—Nilsson, R. Några iakttagelser rörande undre och mellersta dicellograptuskskiffern i västra Skåne. Geol. Fören. Stock. Förh. 75 1 1953: 43-48 text-fig.
- Northrop, S. A. see Bass, N. W.
- Ohkawa, M. see Ookawa, M.
- 134.—Ookawa [Ohkawa on title-page], M. Water Content of a Fresh-Water Medusa, *Craspedacusta sowerbii*. Zool. Mag. Tokyo 61 1 1952: 1-5. [Japanese with English résumé.]
- Owre, H. see Moore, H. B.
- 135.—Oye, P. van & Haack, M.-Cl. *Craspedacusta sowerbii* Lankester aux environs de Gand. Ann. Soc. zool. Belg. 83 1952 [1953]: 329-330.
- Packham, G. H. see Stevens, N. C.
- Page, C. H. see Hobbs, H. H., Jr.
- 136.—Pantin, C. F. A. Croomian Lecture. The elementary nervous system. Proc. roy. Soc. 140B 899 1952: 147-168 pls. 13-17 text-figs.
- 137.—Pantin, C. F. A. & Dias, M. V. Rhythm and Afterdischarge in Medusae. Ann. Acad. bras. Cienc. 24 4 1952: 351-364 text-figs.
- 138.—Paproth, E. Eine Kohlenkalkfäuna aus dem Kulmkonglomerat von Frankenberg an der Eder. Paläont. Z. 27 3-4 1953: 169-207 pls. 11-12 text-figs.
- 139.—Parkinson, D. The Carboniferous Limestone of Treak Cliff, Derbyshire, with Notes on the Structure of the Castleton Reef-Belt. Proc. Geol. Assoc. 64 4 1953: 251-268 text-figs.
- 140.—Pasić, M. Geologische und faunistische Darstellung der Verhältnisse des Čerevički Potok und seiner Quellenarme (Fruska Gora). Zborn. Radova geol. Inst. Beograd 23 4 1952: 169-192 pls. 1-4. [Serbian with German summary—see Zool. Rec. 89 4 1952: 9 entry 172.]
- 141.—Pašić, M. Les Polypiers du Crétacé supérieur en Serbie. I. Les polypiers indépendants—genre *Cunoolites*. Zborn. Radova geol. Inst. Beograd 23 5 1953: 95-110 pls. 1-7. [Serbian with French résumé.]
- 142.—Pax, F. Les Zoanthaires des côtes de l'Angola. Arq. Mus. Bocage 22 1951 [? 1953]: 63-73. [For year of publication see Pax, F., Ann. Mus. roy. Congo belge Terrvren Sci. Zool. 15 1952 p. 73.]
- 143.—Pax, F. Die Antipatharien, Zoantharien und Actinarien der "Hvar"-Expedition. Rep. Inst. Oceanogr. Rib. Split 6 1 1952: 1-24 text-figs. [German with Serbian summary.]
- 144.—Pax, F. *Cereus pedunculatus* in der Adria. Acta adriat. 5 2 1953: 1-15 1 pl. text-fig. [German with Serbian summary.]
- 145.—Pax, F. Korallenfischerei in der Adria. Natur u. Volk 83 9 1953: 304-310 text-figs.
- 146.—Pax, F. & Müller, I. Die Anthozoenfauna von der Bucht von Kaštela bei Split. Acta adriat. 5 1 1953: 1-35 text-figs. [German with Serbian summary.]

147.—Pelletier, M. Le Bathonien du Bas-Bugey. C.R. somm. Soc. géol. Fr. 15-16 1952 [1953]: 325-326.

148.—Pelletier, M. Observations stratigraphiques sur les fonctions coralligènes du Bugey (Ain). C.R. Acad. Sci. Paris 237 23 1953: 1540-1542.

149.—Pennak, R. W. Freshwater Invertebrates of the United States. New York (Ronald Press Co.) 1953: i-ix, 1-769 text-figs. [Coelenterates, pp. 98-113.]

150.—Perkins, B. F. Studies of Upper Cretaceous Corals. Abstr. Thes. Sth. Meth. Univ. No. 14 (for 1950, 1951) [1953]: 77.

151.—Philippot, A. Les Graptolites du Massif Armoricaïn. Étude Stratigraphique et Paléontologique. Mém. Soc. géol. min. Bretagne 8 1950: 1-295 text-figs.

152.—Picard, J. Nouvelle contribution à l'étude des Moerisiidae (Hydroids). Rec. Trav. Stat. mar. Endoume No. 4 1952: 53-56.

Picard, J. *see* Gautier, Y.

Picard, J. *see* Molinier, R.

153.—Picken, L. E. R. A Note on the Nematocysts of *Corynactis viridis*. Quart. J. micr. Sci. 94 3 1953: 203-227 2 pls. text-figs.

Piveteau, J. *see* Waterlot, G.

154.—Plumley, W. J. & Graves, R. W. Virgilian reefs of the Sacramento Mountains, New Mexico. J. Geol. 61 1 1953: 1-16 5 figs.

155.—Pope, E. C. Sea Lice or Jelly-fish? Aust. Mus. Mag. 11 1 1953: 16-21 text-figs.

Pope, E. [C.] *see* Dakin, W. J.

156.—Poueyto, A. Contribution à l'étude du Gothlandien des chaînes d'Ougarta (Sahara occidental). C.R. Soc. géol. Fr. 12 1952: 244-245.

157.—Prantl, F. Some Dendroidea from the Daleji beds—gß (Mesodevonian, Bohemia). Bull. int. Acad. Prague 51 1953: 93-99 1 pl. text-figs.

158.—Pray, L. C. Upper Ordovician and Silurian Stratigraphy of Sacramento Mountains, Otero County, New Mexico. Bull. Amer. Assoc. Petrol. Geol. 37 8 1953: 1894-1918.

159.—Přibyl, A. Bibliographic Index of Bohemian Silurian Graptolites. Knihovna stat. geol. úst. CSR. 22 1948: 1-96 2 tables.

Přibyl, A. *see* Bouček, B.

160.—[Pronin, A. A.] [Vizeisk valley of the western slope of the Middle Urals.] C.R. Acad. Sci. URSS N.S. 90 3 1953: 453-455. [Russian only.]

161.—Raffy, A. Résistance de quelques Actiniaires intercotidaux à l'émersion et à la dessalure. Bull. Soc. zool. Fr. 77 1953: 484-487.

162.—Rayner, D. H. The Lower Carboniferous Rocks in the North of England: A Review. Proc. Yorks. geol. Soc. 28 4 1953: 231-315 pls. 19, 20 text-fig.

163.—Rees, W. J. Records of Hydroids and Medusae taken at Herdla, Bergen in 1937. Univ. Bergen Arb. Natur. R. 1952 16 1953: 1-8.

164.—Rees, W. J. Note on *Phyllirrhoe bucephala* Péron and Lesueur and *Mnestra parasites* Krohn. Proc. Malacol. Soc. Lond. 29 6 1953: 219-221.

165.—Reis, R. H. Rhythmic Behavior Patterns in *Pelmatohydra oligactis*. Trans. Amer. micr. Soc. 72 1 1953: 1-9 text-fig.

Reniers-Decoen, M. *see* Brien, P.

166.—Richey, W. C. Vertebrate Relatives. Proc. Pa. Acad. Sci. 27 1953: 245-260 text-figs.

167.—Richter, R. Vorzeitliche Korallen entschleiern deutsche Gebirge. Natur u. Volk 83 4 1953: 109-115 text-figs.

168.—Robson, E. A. Nematocysts of *Corynactis*: The Activity of the Filament during Discharge. Quart. J. micr. Sci. 94 3 1953: 229-235 2 pls.

169.—Ross, M. H. The Favositidae of the Hamilton Group (Middle Devonian of New York). Bull. Buffalo Soc. nat. Sci. 21 2 1953: 37-89 pls. 12-27 text-figs.

170.—Rózkowska, M. Pachyphylinae et *Phillipsastraea* du Frasnien de Pologne. Palaeont. polon. 5 1953 (for 1952): v + 1-89 pls. 1-8 text-figs.

171.—Salter, K. E. W. & Besley, M. A. Coral Genera of Heron Island (Barrier Reef). Linn. Soc. N.S.W. Abstr. Proc. No. 609 1950.

172.—Schäfer, W. Zur Unterscheidung gleichförmiger Kot-Pillen meerischer Evertibraten. *Senckenbergiana* 34 1-3 1953 : 81-93 text-figs.

173.—Schubert, K. Mikroskopische Untersuchung pflanzlicher Einschlüsse des Bernsteins. 2 Teil: Rinden und Borken. *Palaeontogr. Stuttgart* B93 4-6 1953 : 103-119 pls. 31-33. ["Corals" p. 105.]

174.—Schulz, E. Ungeschlechtliche Fortpflanzung durch Knospung bei *Protohydra leukarti* Greef. (Studien an Hydrozoa, III.) Kieler Meeresforsch. 9 1 1952 : 68-69.

175.—Sears, M. Notes on siphonophores. 2. A revision of the Abylinae. *Bull. Mus. comp. Zool. Harv.* 109 1 1953 : 1-119 text-figs.

176.—Sembrat, K. *Stutbia*. *Popul. Monog. Zool., Warszawa* 5 1953 : 1-79 text-figs.

177.—Shaw, A. B. Paleontology of northwestern Vermont. III. Miscellaneous Cambrian fossils. *J. Paleont.* 27 1 1953 : 137-146 pl. 18.

178.—Shikama, T. A Handbook of Illustrated Fossils from Japanese and their Adjacent Territories, pp. 1-376 pls. 1-57 text-figs. Kyôto, 1952. [In Japanese.]

179.—Shrock, R. R. & Twenhofel, W. H. Principles of Invertebrate Paleontology, 2nd ed.; pp. 98-182, 736-767 text-figs. New York, Toronto & London, 1953.

180.—Singer, J. The induction of regeneration in the hydroid *Cordylophora lacustris*. *Abstr. Diss. Univ. Camb.* 1950-51 1953 : 34-35.

181.—Skjeseth, S. On the Lower Didymograptus Zone (3B) at Ringsaker, and Contemporaneous Deposits in Scandinavia. *Norsk geol. Tidsskr.* 30 1952 : 138-182 pls. 1-5. [Graptolite lists.]

Sloane, J. F. *see* Lilly, S. J.

182.—Smith, S. New name for *Prismatophyllum parvulum* Smith 1945. *J. Paleont.* 27 5 1953 : 759.

Sohonie, K. *see* Chaudhari, P. N.

183.—[Soshkina, E. D.] [A descriptive list of Devonian four-ray corals—Kugosa.] *Trav. Inst. paléont. Acad. Sci. U.R.S.S.* 39 1952 : 1-126, illustr.

[Not seen—*see* Translated Contents Lists of Russian Periodicals, D.S.I.R. No. 53, 1953 : 90.]

184.—Spjeldnaes, N. The Middle Ordovician of the Oslo Region, Norway. 3. Graptolites dating Beds below the Middle Ordovician. *Norsk geol. tidsskr.* Oslo 31 1953 : 171-184 pl. 1 text-figs.

185.—Stasińska, A. Genre *Alveolites* Lamarec du Frasnien des Mts. de Ste-Croix. *Acta geol. polon.* 3 2 1953 : 211-237 pls. 1-4 text-figs. [Russian and French résumés in *Conspectus* pp. 83-88.]

186.—Stevens, N. C. & Packham, G. H. Graptolite zones and associated stratigraphy at Four Mile Creek, Southwest of Orange, N.S.W. *J. roy. Soc. N.S.W.* 86 4 1953 : 94-99 text-figs.

187.—Strachan, I. On some graptolites from the Chasmops beds of Sweden. *Abstr. Diss. Univ. Camb.* 1950-51 1953 : 101.

188.—Straw, H. S. The Silurian Succession at Cwm Graig Ddu (Breconshire). L'pool Manch. geol. J. 1 2 (for 1952) 1953 : 208-219 2 figs.

189.—Stumm, E. C. New name for *Cyathophyllum quadrigeminum artica* Loewe. *J. Paleont.* 27 5 1953 : 759.

Stumm, E. C. *see* Ehlers, G. M.

190.—Sze, L. C. Respiratory gradients in *Tubularia*. *Biol. Bull. Woods Hole* 104 1 1953 : 109-113 3 tables.

191.—Thomas, I. M. *Craspedacusta Sowerbyi* in South Australia, with some Notes on its Habits. *Trans. roy. Soc. S. Aust.* 74 1 1951 : 59-65 text-figs.

192.—Tixier - Durivault, A. Sur quelques Alcyoniidés de Tahiti et des Iles Fidji. *Bull. Mus. nat. Hist. nat. Paris* (2) 25 3 1953 : 311-319 text-fig.

193.—Turner, J. C. E. Graptolite faunas of South America. *Abstr. Diss. Univ. Camb.* 1950-51 1953 : 103-104.

Twenhofel, W. H. *see* Shrock, R. R.

194.—Urbanek, A. Sur deux espèces de Monograptidae. *Acta geol. polon.* 3 2 1953 : 277-297 text-figs. [Russian and French résumés in *Conspectus* pp. 97-107.]

195.—Utinomi, H. *Dendronephthya* of Japan. I. *Dendronephthya* collected chiefly along the coast of Kii Peninsula. *Publ. Seto mar. biol. Lab.* 2 2 1952 161-212 pls. 9-11 text-figs.

196.—Utinomi, H. On a New Deep-sea Alcyonarian from Sagami Bay, *Carotolcyon sagamianum* n. gen. et n. sp. Annot. zool. jap. 25 4 1952 : 441-446 text-fig.

Verstappen, H. Th. see Zaneveld, J. S.

197.—Verwey, J. Annual report of the Zoological Station of the Netherlands Zoological Society for the year 1952. Arch. neerl. Zool. 10 1953 : 343-354.

198.—Vidal, L. M. Nota paleontológica sobre el Cretáceo de Cataluña. Asoc. esp. Progr. Cieñ. Congr. Sevilla 917 : 1-20 pls. 1-4.

199.—[Vyalov, O. S.] [The Permian Sea in Dzhungaria.] C.R. Acad. Sci. URSS N.S. 85 2 1952 : 401-404. [Russian only.]

200.—[Vyalov, O. S.] [Cross-section of the Eastern Dzhungaria.] C.R. Acad. Sci. URSS N.S. 85 3 1952 : 623-626. [Russian only.]

201.—Walker, M. The Development of a Diplograptid from the Platteville Limestone. Geol. Mag. 90 1 1953 : 1-16 text-figs.

202.—Walker, M. The Sicula of *Monograptus scanicus* Tullberg. Geol. Mag. 90 3 1953 : 224 text-fig.

203.—Walker, M. The Development of *Monograptus dubius* and *Monograptus chinaera*. Geol. Mag. 90 5 1953 : 362-373 text-figs.

204.—Warburton, F. E. Antagonism between different species of hydroids on the same shell. Ecology 34 1 1953 : 193-194.

205.—Waterlot, G. Classe des Graptolites, in Piveteau, J., Traité de Paléontologie 3 1953 : 968-997 text-figs.

206.—Wells, J. W. Mesozoic Invertebrate Faunas of Peru. Part 3. Lower Jurassic Corals from the Arequipa Region. Amer. Mus. Novit. 1631 1953 : 1-14 text-figs.

207.—Westblad, E. *Boreohydra simplex* Westblad, a "bipolar" Hydroid. Ark. Zool. 4 4 1953 : 351-354 text-fig. map.

208.—Wiese, L. Über die Bestimmung und Realisation des Geschlechts bei Süßwasserpolyphen. Naturwissenschaften 40 6 1953 : 189-192 text-figs.

209.—Wiese, L. Geschlechtsverhältnisse und Geschlechtsbestimmung bei Süßwasserhydnoiden. Zool. Jb. (Allg. Zool.) 64 1 1953 : 55-85 text-figs.

210.—Williams, A. The geology of the Llandeilo district, Carmarthenshire. Quart. J. geol. Soc. Lond. 108 2 1953 (for 1952) : 177-207 pl. 9 text-figs.

211.—Yabe, H. Problematic Fossils on the Stratification Plane of Some Older Rocks from Japan and Manchuria. Proc. Japan Acad. 25 3-5 1949 : 116-121 text-figs.

212.—Yabe, H. Two Permian Fossils from China and Japan of Uncertain Affinity. Proc. Japan Acad. 25 6 1949 : 212-218 text-figs.

213.—Yabe, H. & Eguchi, M. *Spongophyllum* from the Middle Gotlandian Limestone of Erhtaokou near Kiturin, Mansyû. Proc. Imp. Acad. Tokyo 21 9 1945 : 431-434 text-figs. [Wrongly referred to Yabe, H. & Minato, M. in Zool. Rec. 88 4 1951 : 12 entry 256.]

214.—Yabe, H. & Minato, M. Eine *Verbeekella* Art aus dem Kitakami-Gebirges, nordöstlichen Honshu, Japan. Proc. Imp. Acad. Japan 20 3 1944 : 159-162 text-figs.

215.—Yamazi, I. Plankton investigations in inlet waters along the coast of Japan. III-V. Publ. Seto mar. biol. Lab. 2 2 1952 : 289-330 text-figs.

216.—Yañez A., P. Observacion de larvas medusófilas de actinia. Rev. Biol. mar. Valparaiso 3 3 1951 : 231-232 text-fig.

217.—Yoshida, M. Spawning Activity of the Hydromedusa, *Spirocodon saltatrix*. Zool. Mag. Tokyo 61 12 1952 : 358-366 text-figs. [Japanese with English résumé.]

218.—Zaneveld, J. S. & Verstappen, H. Th. A recent investigation about the geomorphology and the reef of some coral islands in the Bay of Djakarta. J. sci. Res. Djakarta 1 1952 : (2) 38-43, (3) 58-66 text-figs.

II.—SUBJECT INDEX

GENERAL LITERATURE AND HISTORY

Textbooks and General Works.—SEMPRAT 176; SHIKAMA 178; SHROCK & TWENHOFEL 179; WATERLOT 205.

Classification.—Three Polyzoa mistakenly classed as Hydrozoa, GAUTIER & PICARD 73.

Technique.—Cultivation of *Hydra* under controlled conditions, LOOMIS 121.

Biology of *Hypsorophus quadratus*, HUVÉ 97.

Preference of some nudibranchs for certain coelenterates as food, BRAAMS & GELEN 33; coelenterates as food of nudibranchs (p. 345), VERWEY 197.

Faecal pellets of actinians, SCHÄFER 172.

Length of time of a graptolite zone, KOBAYASHI 106.

STRUCTURE

Of the Abylinae, SEARS 175; sensorial organ of *Hydroctena*, DAWYDOFF 56; of †*Retiolites*, BOUČEK & MÜNCH 24; prosicula of †*Retiolites geinitzianus*, KÜHNE 113; of an American Ordovician Diplograptid, WALKER 201; of †*Corynoides divnoviensis*, KOZŁOWSKI 110; thecae of †*Monograptus scanicus*, BULMAN 40; sicula of †*Monograptus scanicus*, WALKER 202; of the †Pachyphyllinae, RÓŻKOWSKA 170; of †*Diploctenium*, ALLOITEAU 2.

PHYSIOLOGY

Luminescence of *Clytia linearis*, KATO 103; histology and chemical properties of the mesogloea of coelenterates, CHAPMAN 43; physical properties of the mesogloea of *Calliactis* and *Metridium*, CHAPMAN 44; hydrolytic enzymes in sea anemones, CHAUDHARI & SOHONIE 45; purple pigment and protein in the threads of *Adamsia rondeleti*, CHRISTOMANOS 46; synthesis of pigment during the reconstitution of *Tubularia*, GOLDMAN 78; water content of *Craspedacusta sowerbii*, OOKAWA 134; antagonistic effects of calcium and potassium on *Hydra*, KUWABARA 115; resistance of some intertidal actinians to exposure and to reduction of salinity, RAFFY 161; reactions of *Coryne muscoides* to parasitic larvae of pycnogonids, BOURDILLON

32; respiratory gradients in *Tubularia*, SZE 190; sexuality in *Hydractinia echinata*, HAUENSCHILD & KANELIS 83; the determination and expression of sex in freshwater hydrozoa, WIESE 208; nerve-physiology, BÜDDENBROCK 39; sensorial organ of *Hydroctena*, DAWYDOFF 56; an action potential from the motor nerves of *Aurellia aurita*, HORRIDGE 90; nervous system of coelenterates, PANTIN 136; rhythmic behaviour patterns in *Pelmatohydra oligactis*, REIS 165; effect of X-rays on budding and regeneration of *Hydra fusca*, BRIEN & ECKHOUDT 36; homoeografts between fragments of normal and irradiated *Hydra* spp., BRIEN 35; grafting experiments with *Pelmatohydra oligactis*, [KANAEV] 101; regeneration in *Hydra* (s.l.), LEHN 117; regeneration in *Cordylophora lacustris*, SINGER 180; regeneration in freshwater hydroids, WIESE 209; rhythm and afterdischarge in *Aurellia aurita*, PANTIN & DIAS 137; nematocysts of *Corynactis viridis*, PICKEN 153; nematocysts and the activity of the filament of *Corynactis*, ROBSON 168; *Physalia physalis* stings, BERLAND 10; stings by jellyfishes, POPE 155.

REPRODUCTION

Experiments on freshwater hydroids, WIESE 209; somatic perennity in hydroids, BRIEN 34; effect of X-rays on budding and regeneration of *Hydra fusca*, BRIEN & ECKHOUDT 36; blastogenesis, spermatogenesis, and oogenesis in *Hydra viridis*, BRIEN & RENIERS-DECOEN 37; budding in *Protohydra leukarti*, SCHULZ 174; reproduction in *Syncoryne* and *Coryne*, BERRILL 13; reproduction in *Hydractinia echinata*, HAUENSCHILD & KANELIS 83; reproduction in *Hypsorophus quadratus*, HUVÉ 97; alternation of generations of some Siphonophora of Bermuda, MOORE 130; spawning activity of *Spirocodon saltatrix*, YOSHIDA 217; asexual reproduction in some young reef corals of the Seriatoporidae, ATODA 5; temperature as a factor influencing fission in *Diadumene luciae*, MIYAWAKI 126.

DEVELOPMENT

Effects where body or organ forms are developed by integration of morphogenetic processes, LEHMANN 116; polymorphism within the Hydractiniidae,

BERRILL 12; *Hydractinia echinata*, HAUENSCHILD & KANELIS 83; *Syn-coryne* and *Coryne*, BERRILL 13; regression-replacement cycle of hydranths of *Obelia* and *Campanularia*, CROWELL 50; regeneration in graptolites, BOUČEK & PŘIBYL 30; an American Ordovician Diplograptid, WALKER 201; †*Mono-graptus dubius* and †*M. chimaera*, WALKER 203; †*Pristiograptus*, URBANEK 194; †*Retiolites*, BOUČEK & MÜNCH 24; ontogeny of †*Retiolites*, EISENACK 66; larva of *Peachia*?, YAÑEZ A. 216; the larva and postlarval development of reef-building corals, ATODA 6; fission in *Tubastraea*, BOSCHMA 22; gigantic growth of a sp. of †*Thecosmilia*, KOLOSVÁRY 107; ontogeny in the †Pachyphyllinae, RÓŻKOWSKA 170.

EVOLUTION AND RELATIONSHIPS

Origin of the coelenterates from a turbellarian, HADŽI 81; discussion of coelenterates as ancestors of vertebrates, RICHEY 166; graptolites considered to be specialized coelenterates, BOHLIN 16; evolution of species of *Globosograptus* and *Mediograptus*, BOUČEK & PŘIBYL 28; phylogeny of some Ordovician graptolites, BOUČEK & PŘIBYL 29; of the Gorgoniidae, BAYER 9; †*Calamophyllia* and †*Thecosmilia* considered only to be parallel development, KOLOSVÁRY 107; phylogeny in the †Pachyphyllinae, RÓŻKOWSKA 170.

ECOLOGY AND HABITS

Daphnia eaten by *Hydra*, GRAVE 79; habits of *Craspedacusta sowerbyi*, THOMAS 191; vertical distribution of planktonic coelenterates in the Sea of Japan, FURUHASHI 72; planktonic coelenterates of Japan, YAMAZI 215; hydrozoa, an alcyonarian and actiniaria of rocky shores around Anglesey, LEWIS 118; sedentary coelenterates of sublittoral boulders in an Irish sea lough, LILLY & OTHERS 119; hydrozoa and an anthozoan growing on buoys at Heligoland, CASPERS 41; ecology of Swedish occurrence of *Halammohydra octopodides*, DAHL 51; ecology of western Mediterranean occurrence of *Hypsorophus quadratus*, HUVÉ 97; ecology of some shores of Sicily, MOLINIE & PICARD 128; zoogeography of the Gulf of Mexico, HEDGPETH 85; factors affecting the seasonal and daily distribution of siphonophores of the Florida Current, MOORE 130; control

of the vertical distribution of siphonophora of the Florida Current in the daytime by light and temperature, MOORE, OWRE, JONES & DOW 131; intertidal zonation in Tasmania, GÜLER 80; observations on the ecology of the green and red varieties of *Actinia equina* (p. 448), BOUGIS & GABIS 31.

Commensalism, Association and Symbiosis.—*Obelia* and *Sertularia* with numerous organisms (p. 203) on the Texan coast, HEDGPETH 85; antagonism between two hydroids on the same shell, WARBURTON 204; *Mnestra parasites* attached to the nudibranch *Phyllirrhoe bucephala*, REES 164; *Amphianthus radiatus* with a brachiopod, JAECKEL 99; association of *Adamsia palliata* and *Eupagurus prideauxi*, BERNER 11.

Coral reefs.—Check list of atolls, BRYAN 38; in Indonesia, ZANEVELD & VERSTAPPEN 218; a Carboniferous reef knoll of Northern England, BLACK 14.

DISTRIBUTION

1.—GEOGRAPHICAL

A.—MARINE

Atlantic (including Mediterranean and Black Sea).—Discussion of *Erina aspera*, BOSCHMA 20; revision of the Abylinae, SEARS 175; *Halammohydra octopodides* off Sweden, DAHL 51; hydroids and medusae of Norway, REES 163; an attached *Mnestra parasites* from Villefranche, REES 164; Moerisiidae from brackish water in the Iberian Peninsula and France, PICARD 152; a campanulid hydroid new to Europe and revision of the Campanulidae, HUVÉ 96; revision of Mediterranean Campanulinidae, HUVÉ 95; Siphonophora of the Florida Current, MOORE 130, MOORE, OWRE, JONES & DOW 131; *Corallium rubrum* in the Adriatic Sea, PAX 145; Gorgoniidae in the West Indies, BAYER 9; hydrozoa, an alcyonarian and actiniaria of Anglesey, LEWIS 118; Norwegian corals and hydrozoa, BOSCHMA 18; West African corals, MONOD 129; antipatharians, zoantharians and actinarians of the Adriatic Sea, PAX 143; *Cereus pedunculatus* in the Adriatic Sea, PAX 144; anthozoa of the Yugoslavian coast, PAX & MÜLLER 146; *Amphianthus radiatus* from W. Africa, JAECKEL

99; zoantharians of Angola, PAX 142; *Tubastraea* of the West Indies, BOSCHMA 22.

Pacific Ocean.—Planktonic coelenterates of the Sea of Japan, FURTHASHI 72; planktonic coelenterates of Japan, YAMAZI 215; discussion of the Stylasterina, BOSCHMA 21; revision of the Abylinae, SEARS 175; *Laccocoryne horii* from Japan, PICARD 152; hydromedusae of the Great Barrier Reef, KRAMP 111; *Dendronephthya* of Japan, UGINOMI 195; a new genus and sp. of alcyonarian from Japan, UGINOMI 196; Gorgoniidae in the E. Pacific regions, BAYER 9; alcyonarians of Tahiti, TIXIER-DURIVAUT 192; coelenterates of Australia, DAKIN & OTHERS 53; *Tubastraea* of the Kei Islands, BOSCHMA 22; corals from Japan, EGUCHI 61; planulae of *Acropora* in plankton at Taiwan [Formosa], KAWAGUTI 104; coral genera of Heron Island (Great Barrier Reef), SALTER & BESLEY 171.

Indian Ocean.—A new hydroid from Natal, EWER 69; revision of the Abylinae, SEARS 175; coelenterates of W. Australia, DAKIN & OTHERS 53.

Arctic Ocean.—None.

Antarctic Ocean.—*Boreohydra simplex* at S. Georgia, WESTBLAD 207.

B.—FRESHWATER

Biology of freshwater polyps, [KANAEV] 100; hydrozoa of the British Isles, CLEGG 47; key to Polish hydrozoa, SEMPRAT 176; coelenterates of the U.S.A., PENNAK 149; reproduction in *Hydra viridis*, BRIEN & RENIERS-DECOEN 37.

Craspedacusta.—*C. sowerbii* in Belgium, OYE & HAECK 135; *C. sowerbii* in Maryland, ALLAN 1; *C. ryderi* in a lake in Tennessee, CHADWICK & HOUSTON 42; *C. sowerbii* in Virginia, HOBBS & PAGE 88; *C. sowerbii* in a reservoir in Pennsylvania, JACKSON 98; *C. sowerbyi* in S. Australia, THOMAS 191.

2.—GEOLOGICAL

Pleistocene.—A coral in Maryland, BLAKE 15; corals in Florida, COOKE 48.

Pliocene.—A coral in Morocco, GIGOUT 76.

Miocene.—A new name for a sp. of *Trochocyathus* from HUNGARY, HEGEDŰS 86; corals of southern Slovakia, KOPPEL 109; corals of Poland, MOENKE 127.

Oligocene.—Corals in amber of Germany, KIRCHNER 105, SCHUBERT 173.

Eocene.—*Stylaster mooraboolensis* from Victoria, Australia, BOSCHMA 19; a coral of Greenland (or Oligocene-Miocene), HASSAN 82.

Cretaceous.—*Murchisonia* from Egypt, HUDSON 93; Algerian corals previously presumed to be Cretaceous shown to be Liassic, CORNET, GALMIER & LUCAS 49; *Diplocentrum* in France, ALLOTTAT 2; *Aepidoceras* and an *Epismilia*? in Spain, AMOR & MARTINEZ 3; *Cyclolites* of Spain, ASTRE 4; a new genus and sp. of coral in Spain, VIDAL 198; corals of Serbia, MAKSYMOWICZ & MARKOVIC 122, MARKOVIC & ANDELEKOVIC 123, PASIC 140, 141; corals of Morocco, GIGOUT 76; a new sp. of *Enallithia* from Japan, EGUCHI 61; corals of Japan, EGUCHI 63; a Greenland coral, DONOVAN 58; corals of N. America, PERKINS 159.

Jurassic.—Systematic position of *Cladocoropsis*, HUDSON 92; corals in France, PELLETIER 147; age of coral beds of Ain, France, PELLETIER 148; corals of Germany, GEYER 74; corals in Württemberg, GEYER 75; Liassic age of corals of Algeria, CORNET, GALMIER & LUCAS 49; a new sp. and subsp. of *Enallithia* from Japan, EGUCHI 61; corals and stromatoporeoids of Japan, EGUCHI 62; corals and a hydrozoan from Peru, WELLS 206.

Triassic.—A new sp. of *Thalassmilites* from Hungary, KOLOSÁRY 107.

Permian.—A ?hydrozoan from Japan, YABE 212; corals of Dzhungaria, [VYALOV] 199; a tabulate coral in Dzhungaria, [VYALOV] 200; *Wentzelella timorica* in Northern Tai, MINATO 124; a new sp. of *Verbeekella* from Japan, YABE & MINATO 214; rugose corals of Mexico, DUNCAN 59.

Carboniferous.—Corals in Derbyshire, Parkinson 139; coral zones in northern England, RAYNER 162; corals of Germany, PAPROTH 138; a coral in Austria, FLÜGEL 70; a coral of Hungary.

FÖLDVÁRI 71; corals of the Middle Urals, [PRONIN] 166; corals in Manchuria, ENDŐ 68; corals in Japan, HAYASAKA & MINATO 84; corals of Japan, KANMERA 102; corals in Japan, MINATO & OTHERS 125; corals of Arizona, EASTON & GUTSCHICK 60; a new sp. of *Palaeostraea* from Kentucky, EHLERS & STUMM 65; three corals in New Mexico, PLUMLEY & GRAVES 154.

Devonian.—Two new dendroid graptolites from Bohemia, PRANTL 157; graptolites, stromatoporoids and corals of New York State, DALE 54; stromatoporoids and corals in New York State, DAVIS 55; corals and stromatoporoids in Germany, GLINSKI 77; corals and stromatoporoids in Austria, FLÜGEL 70; *Alveolites* of Poland, STASIŃSKA 185; tabulate corals in the Shantar Islands, Okhotsk Sea, [KRASNII] 112; Favositidae of New York, ROSS 169; rugose corals, [SOSHKINA] 183; corals in Germany, KUPFAHL 114; rugose corals of Germany, RICHTER 187; rugose corals of Poland, RÓŻKOWSKA 170; corals in Manchuria, ENDŐ 68; corals of Morocco, GIGOTT 76; *Billingstraea* spp. of the U.S.A. and Canada, EHLERS & STUMM 64; a new name for a Canadian rugose coral, SMITH 182; a new name for an arctic rugose coral, STUMM 189; corals in E. Australia, STEVENS & PACKHAM 186.

Silurian.—Graptolites in Wales, WILLIAMS 210; graptolites of France, PHILIPPOT 151; *Monograptus scanicus* in boulders in the German Pleistocene, BULMAN 40; graptolites in pebbles in Germany, EISENACK 67; graptolites in Germany, HORSTIG 91; *Retiolites geinitzianus* in a boulder in Germany, KÜHNE 113; graptolites of Germany, MÜNCH 132; derived *Monograpti* in a German Pleistocene deposit, WALKER 203; new spp. of *Retiolites* and *Plectograptus* from the Baltic area, EISENACK 66; two spp. of *Pristiograptus* of Poland, URBANEK 194; a new genus of graptolite, BOUČEK & MÜNCH 23; *Retiolites* of C. Europe, BOUČEK & MÜNCH 24; a new subgenus of *Monograptus*, BOUČEK & PŘIBYL 25; graptolites of Bohemia, BOUČEK & PŘIBYL 26; slender species of *Monograptus*, BOUČEK & PŘIBYL 28; *Diversograptus* in Bohemia, BOUČEK & PŘIBYL 30; a new genus and family and an index of

Bohemian graptolites, PŘIBYL 159; graptolites of Morocco, GIGOTT 76; graptolites in the western Sahara, POUEYTO 156; graptolites of South America, TURNER 193; graptolites and two corals in Breconshire, STRAW 188; graptolites and corals of Germany, DAHMER 52; graptolites and corals in Germany, KUPFAHL 114; graptolites and corals in Austria, FLÜGEL 70; graptolites and corals of Norway, HOLTEDAHN 89; graptolites, stromatoporoids and corals of New York State, DALE 54; graptolites and corals in E. Australia, STEVENS & PACKHAM 186; a coral in Manchuria, ENDŐ 68; a new sp. of *Spongophyllum* from Manchuria, YABE & EGTCHI 213; corals in New Mexico, PRAY 158.

Ordovician.—Taxonomy of graptolites, BOUČEK & PŘIBYL 27; taxonomy and phylogeny of some graptolites, BOUČEK & PŘIBYL 29; length of time of a graptolite zone, KOBAYASHI 106; graptolites in Wales, WILLIAMS 210; graptolites of France, PHILIPPOT 151; a new sp. of *Corynoides* in an erratic pebble in Poland, KOZŁOWSKI 110; graptolites in Sweden, LINDSTRÖM 120, NILSSON 133, STRACHAN 187; graptolites of Norway, SPJELDNE 184; graptolites in Scandinavia, SEJSETH 181; graptolites of Morocco, GIGOTT 76; a dendroid graptolite in Colorado, BASS & NORTHEOP 8; graptolites of New York State, DALE 54; graptolites of Oklahoma, DECKER & HUFFMAN 57; graptolitic shale in Oklahoma, HUFFMAN 94; development of an American Diplagraptid, WALKER 201; *Nemagraptus gracilis* in Argentina, BORRILLO & GARECA 17; graptolites of South America, TURNER 193; graptolites in E. Australia, STEVENS & PACKHAM 186; graptolites and corals in Austria, FLÜGEL 70; graptolites and corals of Norway, HOLTEDAHN 89; corals and a stromatoporoid in New Mexico, PRAY 158; corals of Norway, HILL 87; corals in Texas, BARNES, CLOUD & DUNCAN 7.

Cambrian.—A dendroid graptolite of Norway, HOLTEDAHN 89; graptolites in Colorado, BASS & NORTHEOP 8; a graptolite of Vermont, SHAW 177; graptolites of South America, TURNER 193.

Pre-Cambrian.—Problematical structures in Manchuria, YABE 211.

III.—SYSTEMATIC INDEX

Full references are given only in the case of a new species. In other cases the numeral in "Large bold clarendon," e.g., 15, refers to the list of titles where the full reference is to be found. Where a reference is given in the Systematic Part, the volume number is printed in "Small bold clarendon," e.g., 15.

HYDROZOA

Abyla p. 18, key to spp. p. 33, *trigona* p. 35 fig., *carina* p. 37 fig., *schmidtii* sp. n. p. 38 fig. near the Seychelles, *haeckeli* p. 39 fig., *ingeborgae* sp. n. p. 42 fig. Gulf of Guinea, *peruana* sp. n. p. 44 fig. Peru, *bicarinata* p. 45 fig., *brownia* sp. n. p. 46 fig. off Mozambique, *tottoni* sp. n. p. 47 fig. off St. Helena, SEARS Bull. Mus. comp. Zool. Harv. 109 1 1953.

Abylinae discussed p. 6, SEARS 175.

Abylopsis p. 76, key to spp. p. 80, *tetragona* p. 80 fig., *eschscholtzii* p. 84 fig., SEARS 175.

Abylopsoides gen. n. (subfam. Abylinae) p. 87, type species (by original designation) *dorsalis* p. 89 fig., *ventralis* p. 90 fig., *basalis* p. 91 fig., spp. n. near the Seychelles, ? *A.* sp. p. 92, SEARS Bull. Mus. comp. Zool. Harv. 109 1 1953.

†*Actinostroma tokadiense* p. 118 fig., *variabile* p. 170 fig., *yabei* p. 170 fig., SHIKAMA 178.

Aeginura myosura p. 309, KRAMP 111.

Aequorea p. 34, *aequorea* p. 34 fig., *pensilis* pp. 36, 37, *vitina* pp. 36, 37, HUVÉ 95.—*A.* discussed, *conica* p. 289, *australis* p. 290 fig., *globosa* p. 293, *macroductyla* p. 294, *pensilis* p. 295, *purpurea*, *pleuronota* and *undulosa* may be spp. of *Zygocanna* p. 307, KRAMP 111.

Aglaphenia divaricata p. 126 fig., JAKIN & OTHERS 53.

Aglaura hemistoma pp. 300, 309, KRAMP 111.

Amphinema dinema p. 265, *turrida* p. 11, KRAMP 111.

†*Amphipora hikutizawaensis* pp. 170, 72 fig., SHIKAMA 178.

Amphogona apsteini p. 300, KRAMP 11.

Annulella gemmata p. 53, PICARD 152.

Bassia bassensis p. 94 fig., SEARS 175.

Boreohydra simplex p. 351 fig., WESTBLAD 207.

Bougainvillia fulva p. 264, sp. p. 310, KRAMP 111.

†*Burgundia* [as *Burgandia* (sic)] *semicathrata* p. 118 fig., SHIKAMA 178.

Campanulina acuminata, tenuis p. 35, *repens, turrita* p. 39, *minuta* p. 40, HUVÉ 95.

Carmaris giltschi a synonym of *Geryonia proboscidalis* p. 309, KRAMP 111.

Ceratocymba p. 54, key to spp. p. 62, *sagittata* p. 63 fig., *leuckartii* p. 67 fig., *dentata* p. 69 fig., *intermedia* sp. n. p. 71 fig. Banda Sea, SEARS Bull. Mus. comp. Zool. Harv. 109 1 1953.

Cirrhitiara superba p. 267, KRAMP 111.

Cladocanna probably a *Toxorchis* p. 308, KRAMP 111.

†*Cladocoropsis* discussed p. 615, *mirabilis* p. 617, *zuffardiae, memoria-naumanni* p. 618, HUDSON 92.—*C.* sp. cf. *mirabilis* p. 12 fig., WELLS 206.

†*Clathrodictyon regulare* p. 170 fig., *onukii* p. 170 fig., SHIKAMA 178.

†*Clavidictyon columnare* p. 170 fig., SHIKAMA 178.

Clytia bakeri p. 393 fig., HUVÉ 96.

Cordylophora lacustris p. 115 fig., CLEGG 47.—*C. lacustris* pp. 105, 112 fig., PENNAK 149.

Coryne vermicularis p. 297 fig., *corrigata* p. 297 fig., BERRILL 13.

Craspedacusta sowerbii pp. 104, 112 fig., PENNAK 149.

Cunina octonaria p. 304, parasitic stolon-larvae p. 305, KRAMP 111.

Cytacis tetrastyla p. 263, KRAMP 111.

†*Deontopora mooraboolensis* a sp. of *Stylaster* p. 355, BOSCHMA 19.

Dipleuron gracilis p. 389 fig., HUVÉ 96.

†*Disjectopora japonica* p. 98 fig., SHIKAMA 178.

Eirene discussed p. 280, *hexanemalis* p. 281 fig., *palkensis* p. 283, *kambara* p. 283 fig., *ceylonensis* p. 285, *menoni* sp. n. p. 286 fig. Great Barrier Reef, KRAMP Sci. Rep. Gr. Barrier Reef Exped. 6 4 1953.

Enneagonum hyalinum p. 98 fig., SEARS 175.

†*Epistromatopora* see *Stromatopora*.

Eucheilota duodecimalis var. *parvum* p. 393 fig., HUVÉ 96.—*E.* sp. I, sp. II, p. 270, KRAMP 111.

Eucope hyalina is a *Phialella* p. 311, KRAMP 111.

Eudendrium lendenfeldti p. 127 fig., DAKIN & OTHERS 53.

Euphysora bigelowi p. 262, *annulata* p. 263, KRAMP 111.

Eutima levuka, curra p. 288, KRAMP 111.

Eutimalphes pretiosa p. 308, KRAMP 111.

Geryonia proboscidalis pp. 301, 309, *dianaea* p. 308, KRAMP 111.

Gonothyræa (?) *nodosa* p. 393 fig., HUVÉ 96.

Halicreas minimum p. 299, KRAMP 111.

Helgicirrho malayensis p. 286, KRAMP 111.

Heterotiara minor p. 268, KRAMP 111.

Hydra viridis p. 34 fig., BRIEN & RENIERS-DECOEN 37.—*H.* spp. p. 109 fig., CLEGG 47.—*H. oligactis* p. 109 fig., *pseudoligactis* p. 109 fig., *oregona, canadensis* p. 109, *utahensis* p. 112 fig., *carnea* p. 112 fig., *cauliculata* p. 112 fig., *littoralis* p. 112 fig., *americana* p. 112 fig., *hymanae* p. 112 fig., PENNAK 149.—*H. circumcincta* p. 191 fig., WIESE 205.

Hydractinia echinata p. 258 fig., BEERILL 12.

Hypsorophus quadratus p. 38 fig., HUVÉ 95.

†*Istriactis* a junior synonym of *Millestroma* p. 885, HUDSON 93.

†*Kitakamia mirabilis* p. 172 fig., SHIKAMA 178.

Laccocoryne horii p. 54, PICARD 152.

Laodicea indica pp. 268, 311, *fertilis* p. 311, KRAMP 111.

Laomedea acuminata p. 35, *tenuis* p. 39, HUVÉ 95.

Leptoscyphus in part a synonym of *Hypsorophus* p. 38, HUVÉ 95.

Leuckartiara octona, gardineri p. 267, KRAMP 111.

Liriope tetraphylla p. 301, *rosacea* p. 311, KRAMP 111.

Lizusa prolifera may be a *Bougainvillia* p. 310, KRAMP 111.

Lovenella gracilis p. 392 fig., HUVÉ 96.

Merga vidacea p. 265, KRAMP 111.

†*Milleporella sardoa, marticensis, fasciculata, adriaticus* all spp. of *Millestroma* p. 885, HUDSON 93.—*M. fasciculata* p. 118 fig., SHIKAMA 178.

†*Milleporidium zuffardiae* a sp. of *Cladocoropsis* p. 618, HUDSON 92.—*M. fasciculatum* p. 118 fig., *steinmanni* p. 118 fig., SHIKAMA 178.

†*Millestroma* discussed p. 884, a senior synonym of *Milleporella* and *Istriactis* p. 885, *nicholsoni* p. 884, *sardoa, marticensis, fasciculata, adriaticus* p. 885, HUDSON 93.

Millestromidae p. 885, HUDSON 93.

Mitrocomium annae p. 310, KRAMP 111.

Mnestra parasites possibly identical with *Zanclaea costata* p. 221, REES 164.

Obelia australis p. 128 fig., DAKIN & OTHERS 53.

Octorhopalon fertilis probably a *Laodicea* p. 310, KRAMP 111.

Ocotiara gen. n. p. 266, type species (by monotypy) *russelli* sp. n. p. 266 fig. Great Barrier Reef, KRAMP Sci. Rep. Gr. Barrier Reef Exped. 6 4 1953.

Odessia maeotica p. 55, PICARD 152.

Olindias singularis p. 298, KRAMP 111.

Opercularella lacerata p. 40, HUVÉ 95.

†*Palaeoplysina laminaeformis*—see *Incertae Sedis*.

†*Parastromatopora* see *Stromatopora*.

Pennaria australis pp. 126, 127 fig., DAKIN & OTHERS 53.

Phialella a synonym of *Hypsorophus* p. 38, HUVÉ 95.—*P. hyalina* p. 311, KRAMP 111.

Phialidium hemisphaericum p. 271, *simplex* p. 272, *rangiroae*, sp. p. 273, *pacificum* p. 311, KRAMP 111.

Phialium bakeri p. 393 fig., HUVÉ 96.

Phialucium discussed p. 273, *mbenga* p. 275 fig., *carolinae* p. 276 fig., *condensum* sp. n. p. 279 fig. Great Barrier Reef, KRAMP Sci. Rep. Gr. Barrier Reef Exped. 6 4 1953.

Physalia physalis pp. 402, 407 fig., BERLAND 10.—*P. utriculus* p. 130 fig., DAKIN & OTHERS 53.

Plumularia producta p. 129 fig., DAKIN & OTHERS 53.

Podocoryne carnea p. 241 fig., BERRILL 12.

Proboscoidactyla ornata p. 299, KRAMP 111.

Protohydra leuckarti pp. 107, 112 fig., PENNAK 149.

Pseudabyla gen. n. (subfam. Abylinae) p. 49, type species (by original designation) *irregularis* sp. n. p. 52 fig. western Indian Ocean, *dubia* sp. n. p. 53 fig. near the Seychelles, SEARS Bull. Mus. comp. Zool. Harv. 109 1 1953.

Pseudabylopsis gen. n. (subfam. Abylinae) p. 92, type species (by original designation) *anomala* sp. n. p. 93 fig. off the Seychelles, SEARS Bull. Mus. comp. Zool. Harv. 109 1 1953.

Pseudocymba gen. n. (subfam. Abylinae) p. 72, type species (by original designation) *asymmetrica* p. 75 fig. western Indian Ocean, *anomala* sp. n. p. 75 fig. Dutch East Indies, SEARS Bull. Mus. comp. Zool. Harv. 109 1 1953.

†*Rhabdactinia columnaria* p. 98 fig., SHIKAMA 178.

Rhopalonema velatum p. 299, KRAMP 111.

Sacchohydra problematica a Polyzoan p. 57, GAUTIER & PICARD 73.

Sertularia elongata p. 129 fig., *operculata* p. 129 fig., DAKIN & OTHERS 53.

Silicularia campanularia p. 128 fig., DAKIN & OTHERS 53.—*S. rosea* Hargitt and *minima* Hargitt are Polyzoa p. 57, GAUTIER & PICARD 73.

Solmaris rhodoloma p. 302, KRAMP 111.

Solmundella bitentaculata p. 302, *mediterranea* p. 311, KRAMP 111.

†*Spongiomorpha* (*Heptastylopsis*) *asiatica* p. 118 fig., *miyakoensis* p. 176 fig., SHIKAMA 178.

VOL. 90

Stauraglaura tetragonima p. 309, KRAMP 111.

Stomatoca turrida is an *Amphinema* p. 311, KRAMP 111.

†*Stromatomorpha yokoyamai* p. 118 fig., SHIKAMA 178.

†*Stromatopora memoria-naumanni* a sp. of *Cladocoropsis* p. 618, HUDSON 92.—*S. (Parastromatopora) japonica* p. 118 fig., *memoria-naumanni* p. 118 fig., *kotoi* p. 118 fig., *S. (Epistromatopora) torinusensis* p. 118 fig., *cuneolata* p. 170 fig., SHIKAMA 178.

Stylactis sp. p. 247 fig., *hooperi* p. 254 fig., BERRILL 12.

Stylaster eximius facies minor p. 359 fig., *facies irregularis* p. 359 fig., *facies dentatus* p. 359 fig., BOSCHMA 19.

†*Stylaster mooraboolensis* p. 355 fig., BOSCHMA 19.

Syncoryne mirabilis p. 273 fig., sp. p. 279 fig., *eximia* p. 281 fig., BERRILL 13.—*S. minima* p. 127 fig., DAKIN & OTHERS 53.

Thaumantias quadratus, aeronautica, octona, maculata, globosa p. 41, HUVÉ 95.

Tiaropsidium mediterraneum p. 43 fig., HUVÉ 95.

Tiaropsis macleayi p. 310, KRAMP 111.

†*Tosastroma tokunagai* p. 118 fig., SHIKAMA 178.

Toxorchis polyclada p. 308, KRAMP 111.

Tubularia warreni sp. n. p. 351 fig. Natal, EWER Ann. Natal Mus. 12 3 1953.—*T. gracilis* p. 127 fig., DAKIN & OTHERS 53.

Turritopsis lata p. 310, KRAMP 111.

Verella lata p. 131 fig., DAKIN & OTHERS 53.

Wrightia acuminata p. 35, HUVÉ 95.

Zanlea costata p. 263, KRAMP 111.—*Z. costata* possibly identical with *Mnestra parasites* p. 221, REES 164.

Zygocanna spp. p. 307, *costata* p. 309, KRAMP 111.

†GRAPTOLITHINA

Amplexograptus see *Diplograptus*.

Balticograptus subgen. n. (of *Holotretiolites*) pp. 17, 69, 117, type species (by original designation) *H. erraticus* pp. 18, 69, 117 fig. Silurian Baltic area, *balticus* pp. 18, 69, 117 fig., *münchi* pp. 19, 69, 117, BOUČEK & MÜNCH Sborn. geol. Ust. csl. paleont. 19 1952.

Bryograptus crassus p. 279 fig., *apertus* p. 279 fig., *pusillus* p. 279 fig., *lapworthi* p. 279 fig., BOUČEK & PŘIBYL 29.

Cardiograptus angustifolius p. 273 fig., BOUČEK & PŘIBYL 29.

Climacograptus typicalis p. 29 fig., *putillus* p. 29 fig., DALE 54.—*C. scharenbergi* p. 192 fig., HOLTEDAHL 89.

Clonograptus flexilis p. 275 fig., *herrmanni* p. 277 fig., BOUČEK & PŘIBYL 29.

Corynoides divnoviensis sp. n. p. 193 fig. (Conspectus pp. 65, 68) Ordovician Poland, KOZŁOWSKI Acta geol. polon. 3 2 1953.

Dicellograptus complanatus p. 451 fig., DECKER & HUFFMAN 57.

Dichograptus octobrachiatus p. 275 fig., BOUČEK & PŘIBYL 29.—*D. octobrachiatus* p. 192 fig., HOLTEDAHL 89.

Dictyonema scalariforme p. 91 fig., DALE 54.—*D. flabelliforme* p. 189 fig., HOLTEDAHL 89.—*D. p. 93, pragense* p. 94 fig., *goepperti* p. 96 fig., spp. n. Devonian Bohemia, PRANTL Bull. int. Acad. Prague 51 1953.—*D. vermontense* p. 145 fig., SHAW 177.

Didymograptus discussed p. 278, diagnosed p. 279, *gracilis* p. 277 fig., *v-fractus* p. 279 fig., *geminus* p. 279 fig., *nanus* p. 279 fig., *filiiformis* p. 279 fig., *nicholsoni* p. 279 fig., BOUČEK & PŘIBYL 29.—*D. vacillans* p. 192 fig., *geminus* p. 192 fig., HOLTEDAHL 89.—*D. falco* sp. n. p. 234 fig. Ordovician France, *murchisoni* p. 242 fig., *geminus* p. 242 fig., *stabilis* p. 242 fig., PHILIPOT Mém. Soc. géol. min. Bretagne 8 1950.—*D. hirundo* p. 178 fig., *patulus* p. 178 fig., *hirundo/patulus* ? p. 179 fig., SPJELD-NÆS 184.—*D.* see also *Expansograptus* and *Nicholsonograptus*.

Diplograptinae subfam. n. [sic] p. 7, PŘIBYL Knihovna stat. geol. úst. CSR. 22 1948.

Diplograptus gracilis young stage p. 149 fig., EISENACK 66.—*Diplograptus* (*Glyptograptus*) *teretiusculus* p. 192 fig., HOLTEDAHL 89.—*D. scalaris normalis* p. 354 fig., MÜNCH 132.—*D. (Amplexograptus) perezcavatus* p. 82 fig., SHIKAMA 178.—*D. cf. (Amplexograptus) maxwelli* p. 16 fig., WALKER 201.

Diversograptus pp. 486, 522, 551, *ramosus* pp. 489, 524, 553 fig., cf. *ramosus* pp. 494, 527, 557 fig., *involutus* pp. 494, 528, 557 fig., *capillaris capillaris* pp. 496, 529, 558 fig., *capillaris pergracilis* pp. 500, 532, 561 fig., *mesoludlowiensis* sp. n. pp. 501, 533, 562 fig., *bohemicus* pp. 502, 534, 563 fig., *gracilis* pp. 504, 535, 564 fig., *želkovicensis* sp. n. pp. 506, 536, 565, *globosus* sp. n. pp. 508, 538, 567 fig., *inexpectatus* sp. n. pp. 510, 540, 568, Silurian Bohemia, BOUČEK & PŘIBYL Sborn. uštr. Úst. geol. 20 1953.

Eotetragraptus subgen. n. (of *Tetragraptus*) p. 273, type species (by original designation) *Tetragraptus quadribrachiat* p. 273 fig. Ordovician Canada, *approximatus* p. 274 fig., *crucifer* p. 276 fig., *headi*, *harti*, *amii*, *törnquisti*, *kindlei*, *alatus*, *asteriscus* p. 276, BOUČEK & PŘIBYL Bull. int. Acad. Prague 52 1 1953.—*E.* (subgen. of *Tetragraptus*) nom. nud. p. 81, BOUČEK & PŘIBYL 27.

Etagraptus discussed, *lentus* p. 276 fig., BOUČEK & PŘIBYL 29.

Expansograptus gen. n. p. 279, type species (by original designation) *Didymograptus extensus* p. 279 fig. Ordovician U.S.A., *pennatulus* p. 275 fig., BOUČEK & PŘIBYL Bull. int. Acad. Prague 52 1 1953.

Extensograptus gen. n. p. 81 Ordovician, BOUČEK & PŘIBYL Věstn. čes. Akad. 60 1951.

Globosograptus subgen. n. (of *Mono-graptus*) pp. 7, 37, type species (by original designation) *Mono-graptus wimani* p. 37 Silurian Czechoslovakia, *barrandei*, *crinitus* p. 37, *crispus*, *sartorius* p. 38, BOUČEK & PŘIBYL in PŘIBYL Knihovna stat. geol. úst. CSR. 22 1948.—See also *Mono-graptus*.

Glossograptus aff. *acanthus* p. 181 fig., SPJELD-NÆS 184.

Glyptograptus tamariscus tamariscus lectotype chosen p. 10, *tamariscus linearis* lectotype chosen p. 11, PŘIBYL

159.—*G. aff. dentatus* p. 180 fig., SPJELDNÆS 184.—*G.* see also *Diplograptus*.

Goniograptus perflexilis p. 277 fig., BOUČEK & PŘIBYL 29.

Gothograptus pp. 10, 62, 111, *nassa* pp. 11, 63, 112 fig., *intermedius* sp. n. pp. 15, 66, 115 fig. Silurian Gotland, *spinosus* the type species of *Spinograptus* pp. 32, 82, 130, BOUČEK & MÜNCH Sborn. geol. Úst. čsl. paleont. 19 1952.

Hallograptus aff. mucronatus inutilis p. 181 fig., SPJELDNÆS 184.

Holoretiolites gen. n. p. 153, type species (by original designation) *Retiolites mancki* p. 153 fig., *balticus* sp. n. pp. 134, 153 fig., *H. ? erraticus* sp. n. pp. 136, 153 fig., Silurian Baltic area, *H. ? simplex* pp. 153, 165 fig., EISENACK Palaeontographica Stuttgart 100A 1951.—*H.* pp. 16, 67, 115, *H. (Holoretiolites) mancki* pp. 16, 68, 117 fig., *simplex* pp. 16, 68, 117 fig., *H. (Balticograptus) erraticus* pp. 18, 69, 117 fig., *balticus* pp. 18, 69, 117 fig., *münchi* pp. 19, 69, 117, BOUČEK & MÜNCH 24.—*H.* see also *Balticograptus*.

Isograptus walcottorum p. 273 fig., BOUČEK & PŘIBYL 29.—*I. gibberulus* p. 173 fig., *norvegicus* p. 174 fig., *lunata* p. 176 fig., *spinosus* sp. n. p. 177 fig. Ordovician Norway, SPJELDNÆS Norsk geol. tidsskr. Oslo 31 1953.

Leptograptus annectans p. 29 fig., DALE 54.

Loganograptus logani p. 275 fig., BOUČEK & PŘIBYL 29.

Mediograptus see *Monograptus*.

Monograptus wimani type species of *Globosograptus* p. 37, BOUČEK & PŘIBYL 25.—*M. (Globosograptus) p. 186, wimani* p. 188 fig., *sartorius* p. 189 fig., *ansulosus* p. 190, *M. (? G.) barrandei* p. 190, *M. (G.) crispus* p. 192 fig., *singularis singularis* p. 194 fig., *singularis mancki* lectotype chosen p. 197 fig., *M. (Mediograptus) p. 198, kolihai kolihai* p. 199 fig., *kolihai minor* p. 200 fig., *minimus* sp. n. p. 200 fig. Silurian Bohemia, *kodymi* p. 201 fig., *remotus* p. 203 fig., *inconspicuus* p. 204 fig., *M. (? subgenus) gemmatus* p. 204 fig., *capillaris* p. 206 fig., BOUČEK & PŘIBYL Bull. int. Acad. Prague 52 1 1953.—*M. scanicus* p. 131 fig., sp. Bulman 1938 is probably

crinitus p. 134, *aversus* Eisenack 1942 may be *scanicus* p. 135, BULMAN 40.—*M. clintonensis* p. 91 fig., DALE 54.—*M. siculae* p. 102 fig., *spiralis* p. 102 fig., ex aff. *vomerinus* p. 102 fig., EISENACK 67.—*M. priodon* p. 206 fig., *vomerinus crenulatus* p. 206 fig., HOLTEDAHL 89.—*M. praecedens* p. 348 fig., *priodon* p. 348 fig., HORSTIG 91.—*M. praecedens* p. 353 fig., *priodon* p. 353 fig., *lobiferus* pp. 354, 356 fig., MÜNCH 132.—*M. renaudi* sp. n. p. 251 fig. Silurian France, *colonus* p. 256, *vomerinus* p. 258, *proteus* p. 264, PHILIPOT Mém. Soc. géol. min. Bretagne 8 1950.—*M. barrandei*, *crinitus* p. 37, *crispus*, *sartorius* p. 38 all spp. of *Globosograptus*, *crenularis* lectotype chosen p. 44, PŘIBYL 159.—*M. scanicus* p. 224 fig., WALKER 202.—*M. dubius* p. 365 fig., *chimaera* p. 370 fig., WALKER 203.

Nemagraptus gracilis pp. 191, 192 fig., BORRELLO & GARECA 17.

Nicholsonograptus gen. n. p. 81, type species *Didymograptus fasciculatus* p. 81 Ordovician, BOUČEK & PŘIBYL Věstn. čes. Akad. 60 1951.—*N. gen. n.* p. 280, type species (by original designation) *Didymograptus fasciculatus* p. 280 Ordovician England, BOUČEK & PŘIBYL Bull. int. Acad. Prague 52 1 1953.

Oncograptus walkeri p. 273 fig., BOUČEK & PŘIBYL 29.

Orthograptus bellulus lectotype chosen p. 11, PŘIBYL 159.—*O. ? sp.* p. 181 fig., SPJELDNÆS 184.

Paraplectograptus gen. n. (fam. Retiolitidae) pp. 7, 21, type species (by original designation) *Retiolites eiseli* p. 21 Silurian Czechoslovakia, BOUČEK & MÜNCH in PŘIBYL Knihovna stat. geol. úst. CSR. 22 1948.—*P.* pp. 37, 87, 134, *eiseli* pp. 39, 88, 136 fig., *hemmanni* sp. n. pp. 41, 90, 137 fig. Silurian Thuringia, *tenuis* pp. 39, 88, 135 fig., BOUČEK & MÜNCH Sborn. geol. Úst. čsl. paleont. 19 1952.

Pendeograptus gen. n. p. 278, type species (by original designation) *Tetragraptus pendens* p. 278 Ordovician England, subsp. *praesagus*, subsp. *posterus* p. 278, *fruticulosus* p. 278 fig., subsp. *campanulatus*, subsp. *distans*, subsp. *tubiformis*, *postlethwaiti*, *clarkei* p. 278, BOUČEK & PŘIBYL Bull. int. Acad. Prague 52 1 1953.—*P. nom. nud.* p. 81, BOUČEK & PŘIBYL 27.

Petalolithus hispanicus lectotype chosen p. 13, PŘIBYL 159.

Phyllograptus angustifolius p. 192 fig., HOLTEDAHL 89.—*P. cf. nobilis* p. 182 fig., SPJELDNÆS 184.

Plectograptinae subfam. n. of Retiolitidae pp. 10, 62, 110, BOUČEK & MÜNCH 24.

Plectograptus pp. 19, 69, 118, *macilentus* pp. 22, 72, 120 fig., *praemacilentus* sp. n. pp. 26, 76, 124 fig. Silurian Czechoslovakia, *lejskoviensis* pp. 28, 78, 126 fig., *P. (?) textor* sp. n. pp. 29, 79, 127 fig. Silurian Czechoslovakia, *dubius* sp. n. pp. 31, 81, 129 fig. Silurian Thuringia, BOUČEK & MÜNCH Sborn. geol. Úst. čsl. paleont. 19 1952. — *P.* diagnosed p. 143, *tetracantus* sp. n. p. 140 fig. Silurian Baltic area, EISENACK Palaeontographica Stuttgart 100A 1951.

Pristiograptus (Saetograptus) chimaera cervicornis subsp. n. p. 278 fig. (Conspectus pp. 97, 100) Silurian Poland, *P. (Pristiograptus) dubius cf. dubius* p. 285 fig. (Conspectus pp. 98, 101), *P.* sp. p. 289 fig. (Conspectus pp. 98, 106), URBANEK Acta geol. polon. 3 2 1953.

Pseudoplegmatozograptus gen. n. (fam. Retiolitidae) pp. 7, 22, type species (by original designation) *Retiolites perlatus* var. *obesus* p. 22 Silurian Ireland, PŘIBYL Knihovna stat. geol. úst. ČSR. 22 1948.—*P. (?) furcatus* sp. n. pp. 42, 91, 138 fig. Silurian Thuringia, BOUČEK & MÜNCH Sborn. geol. Úst. čsl. paleont. 19 1952.

Pseudoretiolites petalozograptoides pp. 45, 93, 140 fig., *thuringicus* pp. 46, 94, 141 fig., spp. n. Silurian Thuringia, sp. pp. 46, 95, 141 fig., BOUČEK & MÜNCH Sborn. geol. Úst. čsl. paleont. 19 1952.

Retiolites eiseli the type species of *Paraplectograptus* p. 21, BOUČEK & MÜNCH 23.—*R.* sp. aff. *geinitzianus* p. 85 fig., *R. (Stomatograptus)* sp. aff. *imperfectus* p. 85 fig., DAHMER 52.—*R. tenuis* p. 131 fig., *balticus* p. 134 fig. (as *Holoretiolites* p. 153), *erraticus* p. 136 fig. (as *Holoretiolites?* p. 153), *münchi* p. 138 fig., *clathrospinosus* p. 139 fig., *pseudospinosus* p. 143 fig., *wimani* p. 145 fig., spp. n. Silurian Baltic area, sp. ind. p. 147 fig., *simplex* p. 163 fig. (as *Holoretiolites?* p. 153), *mancki* p. 153 fig. the type sp. of *Holoretiolites*, EISENACK Palaeontographica Stuttgart

100A 1951.—*R. geinitzianus* p. 444 fig., KÜHNE 113.—*R. perlatus* var. *obesus* the type species of *Pseudoplegmatozograptus* p. 22, PŘIBYL 159.—*R.* see also *Pseudoretiolites*.

Retiolitidae pp. 9, 61, 110, BOUČEK & MÜNCH 24.

Signagraptus praecursor p. 277 fig., BOUČEK & PŘIBYL 29.

Spinograptus gen. n. (fam. Retiolitidae) pp. 32, 82, 130, type species (by original designation) *Retiolites (Gothograptus) spinosus* pp. 35, 84, 132 fig. Silurian England, BOUČEK & MÜNCH Sborn. geol. Úst. čsl. paleont. 19 1952.

Stomatograptus see *Retiolites*.

Tetragraptus p. 272, *T. (Tetragraptus)* p. 272, *serra* p. 272 fig., *bigsbayi* p. 273 fig., *pygmaeus*, *reclinatus*, *phyllograptoides*, *mobergi*, *denticulatus*, *woodae* p. 273, *T. (?) taraxacum* p. 273, *T. (Eotetragraptus) quadribrachiatum* p. 273 fig., *approximatus* p. 274 fig., *crucifer* p. 276 fig., *headi*, *harti*, *amii*, *törnquisti*, *kindlei*, *alatus*, *asteriscus*, *T. (?) subgenus* *lavalensis*, *laverdieri*, *pacificus*, *putillus*, *scandens*, *scandens* var. *curvatus*, *westrogothus* p. 276, BOUČEK & PŘIBYL 29.—*T. serra* p. 192 fig., HOLTEDAHL 89.—*T.* see also *Pendoezograptus*.

SCYPHOZOA

Aurelia coerulea p. 132 fig., DAKIN & OTHERS 53.

Catostylus mosaicus p. 133 fig., DAKIN & OTHERS 53.—*C. mosaicus* p. 19 fig., POPE 155.

Cyanea annaskala p. 20 fig., POPE 155.

ANTHOZOA

ALCYONARIA

Alcyonium palmatum adriaticum p. 29 fig., *brioniense* p. 31, PAX & MÜLLER 146.

Antillogorgia p. 105, *acerosa* p. 102 fig., BAYER 9.

Carotalcyon gen. n. (fam. Alcyonidae) p. 445, type species (by original designation) *sagamianum* sp. n. p. 441 fig. Japan, UYENOMI Annot. zool. jap. 25 4 1952.

Cavernularia obesa p. 134 fig., DAKIN & OTHERS 53.

Corallium rubrum p. 304 fig., PAX 145.

Cornularia cornucopiae p. 29, PAX & MÜLLER 146.

Dendronephthya nipponica p. 164 fig., *tuberculata* p. 166 fig., *spp. n.* Japan, *gigantea* p. 168 fig., *aurea sp. n.* p. 170 fig. Japan, *aculeata* p. 171 fig., *spinifera* p. 172 fig., *japonica* p. 174 fig., *palmata sp. n.* p. 175 fig. Japan, *furcata sp. n.* p. 177 fig. Japan, *alba sp. n.* p. 178 fig. Japan, *palaoensis sp. n.* p. 180 fig. Japan, *filigrana* p. 182 fig., *divaricata* p. 183 fig., *golgotha sp. n.* p. 184 fig. Japan, *cervicornis* p. 186 fig., *decussato-spinosa sp. n.* p. 187 fig. Japan, *dromidicola sp. n.* p. 188 fig. Japan, *spinulosa* p. 191 fig., *pellucida sp. n.* p. 193 fig. Japan, *habererii* p. 195 fig., *dofleini* p. 196 fig., *pulchella sp. n.* p. 198 fig. Japan, *disciformis* p. 199 fig., *densa* p. 201 fig., *acaulis* p. 202 fig., *castanea sp. n.* p. 203 fig. Japan, *pectinata* p. 206 fig., *longicaulis* p. 206 fig., *gloriosa sp. n.* p. 208 fig. Japan, UENOMI Publ. Seto mar. biol. Lab. 2 2 1952.

Eugorgia p. 104, *rubens* p. 102 fig., BAYER 9.

Eunicella verrucosa p. 31, PAX & MÜLLER 146.

Evagora corii p. 29, PAX & MÜLLER 146.

Gorgonia p. 105, *flabellum* p. 102 fig., BAYER 9.

Leptogorgia p. 104, *stheno* p. 102 fig., *viminalis* p. 102 fig., BAYER 9.

Lobularia globuliferoides p. 311, *tuberculoides* p. 312, TIXIER-DURIVAUT 192.

Lobulia australis p. 313, TIXIER-DURIVAUT 192.

Lophogorgia p. 103, BAYER 9.

Pacificogorgia p. 103, *media* p. 102 fig., BAYER 9.

Parerythropodium coralloides p. 31, PAX & MÜLLER 146.

Phycogorgia p. 104, BAYER 9.

Phyllogorgia p. 105, BAYER 9.

Pteroeides spinosum p. 31, PAX & MÜLLER 146.

Pterogorgia p. 107, *guadalupensis* p. 102 fig., BAYER 9.

Sinularia gyrosa p. 314, *polydactyla* p. 315, *robusta* p. 317 fig., *rigida* p. 318, *macropodia* p. 319, TIXIER-DURIVAUT 192.

†TABULATA

Alveolites simplex p. 172 fig., SHIKAMA 178.—*A. tenuissimus* p. 218 fig. (Conspectus pp. 84, 87), *smithi* p. 218 fig. (Conspectus pp. 84, 87), *crassus* p. 222 fig. (Conspectus pp. 84, 87), *complanatus* p. 223 fig. (Conspectus pp. 84, 87), *fecundus* p. 225 fig. (Conspectus pp. 84, 87), *cf. fornicatus* p. 226 fig. (Conspectus pp. 84, 87), *multiaperforatus* p. 228 fig. (Conspectus pp. 84, 87), *parvus* p. 230 fig. (Conspectus pp. 85, 88), *obtus* p. 231 fig. (Conspectus pp. 85, 88), *sub-orbicularis* p. 232 fig. (Conspectus pp. 84, 87), STASIŃSKA 185.

Coccoseris discussed p. 163, *tumulosus sp. n.* p. 165 fig. Ordovician Norway, HILL Norsk geol. Tidsskr. 31 1953.

Coenites triangularis p. 170 fig., SHIKAMA 178.

Emmonsia a genomorph of *Favosites* p. 49, ROSS 169.—See also *Favosites*.

Eofletcheria discussed p. 154, *irregularis* p. 155 fig., *subparallela* p. 156 fig., *spp. n.* Ordovician Norway, HILL Norsk geol. Tidsskr. 31 1953.

Favosites *sp.* p. 202 fig., HOLTEDAHL 89.—*F.* discussed p. 48, *alpenensis* lineage p. 49, *alpenensis* p. 50, *peregrina* subsp. *n.* p. 50 fig., *warthini* p. 51, *joshuensis* subsp. *n.* p. 52 fig., *warthini* subsp. *n.* ? [sic] p. 53 fig., *F. [Emmonsia] arbuscula* p. 54, *arbuscula* subsp. *n.* p. 55 fig., *bethaniensis* subsp. *n.* p. 56 fig., *cervicornensis* subsp. *n.* p. 56 fig., *F. argus-radiatus* lineage p. 57, *radiatus* p. 57 fig., *F. [Emmonsia] squamulata sp. n.* p. 58 figs., *F. argus* subsp. *argus* p. 59 fig., *dariensis* subsp. *n.* p. 60 fig., *leicesterensis* subsp. *n.* p. 61 fig., *billingsi-hamiltoniae* lineage p. 62, *billingsi* p. 62 fig., *hamiltoniae* p. 63 fig., *expansa* subsp. *n.* p. 65 fig., *F. [Emmonsia] emmonsii* p. 65 fig., *F. milne-edwardsi sp. n.* p. 66 fig., *placenta* lineage p. 68, *nitella* p. 68 fig., *centerfieldensis* subsp. *n.* p. 69 fig., *placenta* p. 70 fig., forma *typica form. n.* p. 70 fig., forma *dimetrica form. n.* p. 71 fig., forma *ramosa form. n.* p. 71 fig., *monticulosa* subsp. *n.* p. 72 fig., *gracilis sp. n.* p. 72 fig., *turbinatus* p. 73 fig., Devonian New York, ROSS Bull. Buffalo Soc. Nat. Sci.

21 2 1953.—*F. cf. gotlandicus* p. 88 fig., *kennihensis* p. 88 fig., cf. *baculoides* p. 174 fig., *asper aoki* p. 174 fig., SHIKAMA 178.

Halysites escharoides p. 196 fig., *catenularius* p. 206 fig., HOLTEDAHL 89.—*H. sindoensis* p. 86 fig., *escharoides* p. 86 fig., *kitakamiensis* p. 174 fig., SHIKAMA 178.

Heliolites decipiens [as *decipens* (sic)] p. 172 fig., *bohemicus* p. 172 fig., SHIKAMA 178.

Liopora discussed p. 158, *favosa* p. 159 fig., *tenuis* sp. n. p. 161 fig. Ordovician Norway, HILL Norsk geol. Tidsskr. 31 1953.

Michelinia (*Michelinopora*) *multitabulata* p. 98 fig., SHIKAMA 178.

Michelinopora see *Michelinia*.

Nyctopora discussed p. 162, aff. *parvotabulata* p. 162 fig., HILL 87.

Nyctoporinae discussed p. 161, HILL 87.

Pachypora kitakamiensis p. 170 fig., SHIKAMA 178.

Pleurodictyum p. 23, *expansum* p. 24 fig., EASTON & GUTSCHICK 60.—*P.* discussed p. 74, *americanum* p. 76 fig., *dividua* p. 78 fig., *insigne* p. 79 fig., *senecensis* subsp. n. p. 80 fig., *favositoides* sp. n. p. 81 fig., Devonian New York, Ross Bull. Buffalo Soc. Nat. Sci. 21 2 1953.

Proheliolites dubius p. 196 fig., HOLTEDAHL 89.

Propora proporoides p. 88 fig., *yabei* p. 88 fig., SHIKAMA 178.

Reuschia discussed p. 158, *aperta* p. 158 fig., HILL 87.

Striatopora discussed p. 82, *linneana* p. 82 fig., *parvula* sp. n. p. 83 fig., Devonian New York, Ross Bull. Buffalo Soc. Nat. Sci. 21 2 1953.

Syringophyllum organum pp. 196, 221 fig., HOLTEDAHL 89.

Syringopora aculeata p. 22 fig., *surcularia* p. 22, EASTON & GUTSCHICK 60.—*S. bifurcata* p. 88 fig., cf. *tonkinensis* p. 172 fig., SHIKAMA 178.

Trachypora discussed p. 83, *elegantula* p. 84 fig., *romingeri* sp. n. p. 85 fig., Devonian New York, Ross Bull. Buffalo Soc. Nat. Sci. 21 2 1953.

Trochiscolithus discussed p. 164, HILL 87.

ZOANTHARIA

†*Acanthocyathus* sp. p. 78 fig., *vindobonensis* p. 78 fig., KOPEK 109.—*A. transsilvanicus* p. 253 fig. (Conspectus pp. 91, 95), MOENKE 127.

†*Acanthophyllum* (*Astrophyllum*) *gerolsteinense crassum* p. 112 fig., RICHTER 167.

†*Acerularia macrommata* chosen as genoelectotype of *Pseudoacerularia* p. 39, RÓZKOWSKA 170.

Actinia equina vars. p. 448, BOUGIS & GABIS 31.—*A. tenebrosa* p. 136 fig., DAKIN & OTHERS 53.—*A. equina equina*, *cari* p. 24, PAX & MÜLLER 146.

Adamsia palliata p. 13, PAX 143.—*A. palliata* p. 26, PAX & MÜLLER 146.

Aiptasia mutabilis p. 25, PAX & MÜLLER 146.

†*Akiyosiphyllum stylophorum* p. 176 fig., SHIKAMA 178.

Amphianthus dohrnii p. 17 fig., PAX 143.

†*Amphiastraea* cf. *paronai* p. 185 fig., MAKSIMOVIĆ & MARKOVIĆ 122.

†*Amygdalophyllum giganteum* p. 90 fig., SHIKAMA 178.

†*Anabacia cyclolitoides* p. 114 fig., SHIKAMA 178.

Anemonactis mazeli p. 22, PAX & MÜLLER 146.

Anemonia sulcata p. 23, PAX & MÜLLER 146.

†*Anisoria* gen. n. p. 4, type species (by monotypy) *vidali* sp. n. [as *Mallada*] p. 5 fig. Cretaceous Catalonia, VIDAL Asoc. esp. Progr. Cienc. Congr. Sevilla 1917.

Anthopleura ballii p. 22, PAX & MÜLLER 146.

Anthothoe albocincta p. 137 fig., DAKIN & OTHERS 53.

†*Antillia japonica* p. 166 fig., SHIKAMA 178.

Antipathes subpinnata p. 4 fig., PAX 143.

†*Aspidiscus montgrinensis* var. *altus* var. n. p. 117 fig. Cretaceous Spain, *sinaiticus* p. 118 fig., AMOR & MARTINEZ Bol. Soc. esp. Hist. nat. Geol. 50 1 1952.

- †*Astrangia danae* p. 23, BLAKE 15.
- †*Astrocoenia* sp. cf. *lissoni* p. 3 fig., WELLS 206.
- †*Astrophyllum* see *Acanthophyllum*.
- †*Aulophyllum fungitis* var. *pachyendothecum* p. 176 fig., PAPROTH 138.
- Aureliania heterocera* p. 21, PAX 143.
- Balanophyllia italica* p. 28, PAX & MÜLLER 146.
- †*Balanophyllia* aff. *varians* p. 246, MOENKE 127.
- †*Billingsastraea verneuili* p. 2 fig., *canadensis* sp. n. p. 3 fig. Devonian Ontario, *monticula* sp. n. p. 4 fig. Devonian Ontario and New York, *yandelli* p. 5 fig., *rugosa* p. 5 fig., *affinis* p. 6 fig., *southworthi* sp. n. p. 7 fig. Devonian Ontario, *confluens* p. 8 fig., *longicarinata* sp. n. p. 8 fig. Devonian Ohio, *ingens* p. 9 fig., *billingsi* p. 9 fig., sp. A p. 10, sp. B p. 10, sp. C p. 10, EHLERS & STUMM Bull. Buffalo Soc. Nat. Sci. 21 2 1953.
- Bunodactis verrucosa* p. 23, PAX & MÜLLER 146.
- †*Calamophyllia* discussed p. 174, KOLOSVÁRY 107.
- Calliactis miriam* p. 138 fig., DAKIN & OTHERS 53.—*C. parasitica* p. 12 fig., PAX 143.—*C. parasitica* p. 25, PAX & MÜLLER 146.
- †*Caninia juddi*, *benburgensis* p. 176, PAPROTH 138.
- †*Caninophyllum incrassatum* sp. n. p. 17 fig. Carboniferous Arizona, EASTON & GUTSCHICK Bull. S. Calif. Acad. Sci. 52 1 1953.
- Caryophyllia clavus* p. 27, PAX & MÜLLER 146.
- †*Caryophyllia* sp. p. 77 fig., sp. cf. *leptaxis* p. 78 fig., KOPEK 109.—*C.* sp. p. 252 fig. (Conspectus pp. 91, 95), MOENKE 127.—? *C.* sp. p. 129, DONOVAN 58.
- †*Caulastraea yokoyamai* p. 166 fig., *tumida gracilis* p. 166 fig., SHIKAMA 178.
- Cereus pedunculatus* p. 21, PAX 143.—*C. pedunculatus* p. 1 fig., PAX 144.—*C. pedunculatus* p. 27, PAX & MÜLLER 146.
- Cerianthus membranaceus* p. 20, PAX & MÜLLER 146.
- Cladocora cespitosa* p. 27, PAX & MÜLLER 146.
- Cnidopus verater* p. 136 fig., DAKIN & OTHERS 53.
- Coenocyathus dohrni* p. 27, PAX & MÜLLER 146.
- †*Coenocyathus crassus* p. 256, MOENKE 127.
- Condylactis aurantiaca* p. 25, PAX & MÜLLER 146.
- Corynactis australis* p. 137 fig., DAKIN & OTHERS 53.
- †*Cunolites barrerei* p. 99 fig., *macrostoma* p. 100 fig., *numulus* p. 101 fig., *giganteus* p. 102 fig., *scutellum* p. 102 fig., *numismalis* p. 102 fig., *ligeriensis* p. 103 fig., *filamentosa* p. 103 fig., *faecata* p. 104 fig., *rugosus* p. 104 fig., *reussi* p. 105 fig., cf. *polymorphus* p. 105 fig., *sororius* p. 106 fig., *quenstedti* p. 107, *profundus* p. 107 fig., *conoideus* p. 108 fig., PAŠIĆ 141.
- Cyathelia axillaris* p. 138 fig., EGUCHI 61.
- †*Cyathophyllum multigemmatum* is *Billingsastraea ingens* p. 9, EHLERS & STUMM 64.—*C.* [as *Cyathophyllum* (sic)] *articulatum* p. 206 fig., HOLTEDAH 89.—*C. stutchburyi marginocarinatum* p. 174 fig., SHIKAMA 178.—*C. quadrigeminum arctica* Loewe (not *C. arcticum* Meek) renamed *Hexagonaria loewei* p. 759, STUMM 189.
- †*Cyclolites orbigny* p. 260, *polymorpha* p. 261, *reussi* p. 262, *regularis* p. 263, *tenuiradiata* p. 264, *elliptica* p. 266, ASTRE 4.
- Cyllicia quinaria* p. 138 fig., DAKIN & OTHERS 53.
- †*Deltocyathus italicus* p. 258 fig. (Conspectus pp. 91, 95), MOENKE 127.
- †*Dendrophyllia taurinensis* p. 247, MOENKE 127.
- †*Dermosmilia jezoensis* p. 70 fig. sp. n. p. 70 fig. Lower Cretaceous Japan, EGUCHI J. geol. Soc. Japan 51 605 1944.—*D. jezoensis* p. 176 fig., SHIKAMA 178.
- Diadumene luciae* fission p. 77 fig., MIYAWAKI 126.
- †*Dibunophyllum* sp. cf. *kankouense* p. 165 fig., KANMERA 102.—*D. bipartitum bipartitum* p. 176, PAPROTH 138.—*D. tingi* p. 176 fig., SHIKAMA 178.

†*Diphyphyllum platiforme* var. *kakisakoense* var. n. p. 168 fig. Lower Carboniferous Japan, KANMERA Mem. Fac. Sci. Kyūshū Univ. D3 4 1952.—*D.* (?) *vesicotubulata* p. 174 fig., SHIKAMA 178.—*D.* see also *Lithostrotion*.

†*Diploctenium* discussed p. 537, *lunatum* p. 542 fig., *corbariensis* sp. n. p. 543 fig., *crassicosatum* sp. n. p. 544 fig., *ferrum equinum* p. 545 fig., *uzacalcensis* sp. n. p. 546 fig., *arnaudi* sp. n. p. 547 fig., *lamellosum* p. 549 fig., *enigma* sp. n. p. 550 fig., *epagnacensis* sp. n. p. 551 fig., *jacobi* sp. n. p. 553 fig., *lutaui* sp. n. p. 554 fig., *mixtum* sp. n. p. 555 fig., *loucasi* sp. n. p. 557 fig., *cordatum* p. 559 fig., *subcirculare* p. 560 fig., *petrocoriensis* sp. n. p. 561 fig., *matheroni* p. 562, *cureti* sp. n. p. 563 fig., *gracile* p. 564 fig., *parvum* sp. n. p. 565 fig., cf. *pavoninum* p. 566 fig., *provincialis* sp. n. p. 567 fig., *simplex* sp. n. p. 568 fig., Cretaceous France, ALLOITEAU Bull. Soc. géol. Fr. 6 2 7-9 1953.

†*Discotrochus duncani* p. 249 fig. (Conspectus pp. 90, 95), MOENKE 127.

†*Dokmophyllum involutum* p. 113 fig., RICHTER 167.

†*Ellipsoidastrea* nom. nud. p. 346, ALLOITEAU in CORNET, GALMIER & LUCAS 49.

†*Enallhelma nipponica* sp. n. p. 138 fig. Lower Cretaceous Japan, subsp. *somaensis* subsp. n. p. 139 fig. Jurassic Japan, EGUCHI J. geol. Soc. Japan 49 583 1942.

†*Epismilia* ? sp. p. 117 fig., AMOR & MARTINEZ 3.

Epizoanthus angolensis p. 72, *amei-lictus* p. 73, spp. n. Angola, PAX Arg. Mus. Bocage 22 1951 [? 1953].—*E. arenaceus* p. 5 fig., *mediterraneus* p. 8 fig., PAX 143.—*E. arenaceus* p. 20, PAX & MÜLLER 146.

†*Eupsammia irregularis* p. 243 fig. (Conspectus pp. 90, 94), MOENKE 127.

†*Favia* ? *jezoensis* sp. n. p. 70 fig. Lower Cretaceous Japan, EGUCHI J. geol. Soc. Japan 51 605 1944.—*F. friedbergi* p. 242, MOENKE 127.—*F. pallida* p. 166 fig., *F.* (?) *jezoensis* p. 176 fig., SHIKAMA 178.

†*Flabellum* p. 75, sp., sp. cf. *roissyanum* p. 76, *seneši* sp. n. p. 76 fig. Miocene Slovakia, KOPEK Geol. sborn.

Slovensk. Akad. 3 1-2 1952.—*F. zejszneri* p. 262 fig. (Conspectus pp. 91, 95), MOENKE 127.

†Gen. et sp. unidentified p. 21 fig., EASTON & GUTSCHICK 60.

†? *Grewingkia* sp. p. 150 fig., HILL 87.

†*Heliophyllum confluens* a sp. of *Billingsastraea* p. 8, EHLERS & STUMM 64.

†*Hexagonaria caurus* nom. n. for *Prismatophyllum parvulum* Smith (not Stainbrook) p. 759 Devonian N.W. Canada, SMITH J. Paleont. 27 5 1953.—*H. loewei* nom. n. for *Cyathophyllum quadrigeminum arctica* Loewe (not *C. arcticum* Meek) p. 759 Devonian Arctic, STUMM J. Paleont. 27 5 1953.

†*Hexaphyllia mirabilis* p. 19 fig., FÖLDVÁRI 71.—*H.* sp. p. 169 fig., KANMERA 102.

†*Homalophyllites* see *Triplophyllites*.

Hormathia coronata p. 16 fig., PAX 143.

†*Isastraea* [as *Isastrea* (sic)] *matumotoi* sp. n. p. 70 fig. Lower Cretaceous Japan, EGUCHI J. geol. Soc. Japan 51 605 1944.—*I. hörnesi* p. 185 fig., MAKSIMOVIĆ & MARKOVIĆ 122.—*I.* [as *Isastrea* (sic)] *minima* p. 133 fig., MARKOVIĆ & ANDELKOVIĆ 123.—*I. matumotoi* p. 176 fig., SHIKAMA 178.

†*Keriophyllum tabulatum* p. 111 fig., RICHTER 167.

†*Kueichouphyllum latifossulatum* sp. n. p. 164 fig. Lower Carboniferous Japan, KANMERA Mem. Fac. Sci. Kyūshū Univ. D3 4 1952.—See also *Palaeosmilia*.

†*Lepidophyllia* sp. aff. *hebridensis* p. 9 fig., *peruviana* sp. n. p. 11 fig., *chocolatensis* sp. n. p. 11 fig., Lower Jurassic Peru, WELLS Amer. Mus. Novit. 1631 1953.

†*Lithostrotion* (*Lithostrotionella*) *cinatus* p. 19 fig., *L.* (*Diphyphyllum*) ? *inconstans* p. 20 fig., spp. n. Carboniferous Arizona, EASTON & GUTSCHICK Bull. S. Calif. Acad. Sci. 52 1 1953.—*L. somaense* p. 90 fig., SHIKAMA 178.

†*Lithostrotionella* see *Lithostrotion*.

†*Lonsdaleia japonica* p. 90 fig., *floriformis crassiconus* p. 90 fig., SHIKAMA 178.

†*Lophophyllidium* ? sp. p. 20, DUNCAN 59.

†*Lophophyllum ashfellenense regulare* p. 174 fig., SHIKAMA 178.

†*Macgea* discussed p. 18, *koztowskii* sp. n. p. 19 fig., *berdensis* p. 22 fig., *czarnockii* sp. n. p. 24 fig., cf. *multizonatum* p. 27 fig., aff. *supradevonica* p. 29 fig., Devonian Poland, RÓŻKOWSKA Palaeont. polon. 5 1953.

Madrepora cf. *oculata* p. 136 fig., EGUCHI 61.

†*Malonophyllum texanum* p. 20, DUNCAN 59.

†? *Margarastraea jenksi* sp. n. p. 12 fig. Lower Jurassic Peru, WELLS Amer. Mus. Novit. 1631 1953.

Microcyathus neapolitanus p. 27, PAX & MÜLLER 146.

†*Montastraea* [as *Montastrea* (sic)] *kawabataensis* nom. nud. p. 70, EGUCHI 63.

†*Nagatophyllum katoi* p. 90 fig., SHIKAMA 178.

Neis cordigera p. 139 fig., DAKIN & OTHERS 53.

†*Nipponophyllum giganteum* p. 172 fig., SHIKAMA 178.

†*Oculina parvistella* p. 248 fig. (Con-spectus pp. 90, 94), MOENKE 127.

Oculinidae discussed p. 135, EGUCHI 61.

†*Oppelismilia* sp. cf. *victoriae* p. 6 fig., WELLS 206.

†*Orbicella reussiana* p. 72 fig., KOPEK 109.—*O.* [as *Orbicela* (sic)] *simonyi* p. 133 fig., MARKOVIĆ & ANDELKOVIĆ 123.

Oulactis muscosa p. 136 fig., DAKIN & OTHERS 53.

†*Pachyphyllinae* discussed p. 12, RÓŻKOWSKA 170.

†*Pachyphyllum* discussed p. 37, diagnosed p. 39, *smithi* sp. n. p. 40 fig., cf. *macouni* p. 41 fig., *friedbergi* sp. n. p. 43 fig., *lacunosum* p. 45 fig., *ibergense* p. 47 fig., var. *progressa* var. n. p. 48 fig., Devonian Poland, RÓŻKOWSKA Palaeont. polon. 5 1953.

†*Palaeocyclus rotuloides* p. 94 fig., DALE 54.

†*Palaeosmilia* (*Kueichouphyllum*) *yabei* p. 176 fig., SHIKAMA 178.

†*Palaeostraea* discussed p. 383, *mesar-lani* sp. n. p. 384 fig. Carboniferous Kentucky, *compressa* p. 384 fig., EHLERS & STUMM Pap. Mich. Acad. Sci. Arts Lett. 38 (for 1952) 1953.

Palythoa australiensis p. 138 fig., DAKIN & OTHERS 53.—*P. eremita* p. 67, *congoensis* sp. n. p. 67, *pseudo-braunsi* sp. n. p. 68, *dartevellei* sp. n. p. 69, *halidosis* sp. n. p. 70, *guinensis* p. 70, *thalassoplecta* sp. n. p. 71, *olbrechtsi* sp. n. p. 72, Angola, PAX Arq. Mus. Bocage 22 1951 [? 1953].

Parazoanthus axinellae adriaticus p. 9 fig., PAX 143.—*P. axinellae adriaticus* p. 21 fig., PAX & MÜLLER 146.

Peachia ? larva p. 231 fig., YANEZ A. 216.

†*Pexiphyllum* discussed p. 30, *ultimum* p. 31 fig., *siemiradzskii* sp. n. p. 36 fig. Devonian Poland, RÓŻKOWSKA Palaeont. polon. 5 1953.

†*Phillipsastraea verneuili* Rominger not Edwards & Haime re-named *Billingsastraea canadensis* p. 3, and *rugosa* p. 5, *affinis* p. 6, *verneuili* Lambe partly p. 6, *ingens* p. 9 and *billingsi* p. 9 are all spp. of *Billingsastraea*, EHLERS & STUMM 64.—*P.* discussed p. 57, *ananas* (pars) p. 49 and (pars) p. 52, and *roemeri* p. 53 are spp. of *Pseudoacervularia*, *sanctacrucensis* p. 59 fig., *cordis* p. 61 fig., spp. n. Devonian Poland, *goldfussi* p. 62 fig., *pentagona* p. 64 fig., var. *micrommata* p. 66 fig., var. *minima* var. n. p. 66 fig. Devonian Poland, *bowerbanki* p. 67 fig., RÓŻKOWSKA Palaeont. polon. 5 1953.

Phlyctenactis tuberculosa p. 137 fig., DAKIN & OTHERS 53.

Phlyctenanthus australis p. 138 fig., DAKIN & OTHERS 53.

†*Podabacia elegans lobata* p. 166 fig., SHIKAMA 178.

†*Porites leptoclada* p. 264 fig. (Con-spectus pp. 91, 95), MOENKE 127.

†*Prismatophyllum parvulum* Smith (not Stainbrook) re-named *Hexagonaria caurus* p. 759, SMITH 182.

†*Pseudoacervularia* discussed p. 39, genolectotype chosen *Acervularia macrommata* pp. 39, 49 fig., *ananas* p. 52 fig., *roemeri* p. 53 fig., *samsonowiczi* sp. n. p. 54 fig., *dybowski* sp. n. p. 56

fig., Devonian Poland, RÓZKOWSKA Palaeont. polon. 5 1953.

†*Pseudocaninia longisepta* p. 176 fig., PAPROTH 138.—*P. brevisseptata carinata* p. 176 fig., SHIKAMA 178.

†*Rhopalophyllum fibratum* p. 113 fig., RICHTER 167.

Sagartia elegans p. 21, PAX 143.—*S. troglodytes* p. 26, PAX & MÜLLER 146.

†*Semaiophyllum* sp. (= *Cyatophyllum* [sic] *articulatum*) p. 206 fig., HOLTEDAHL 89.

†*Siderastraea froehlichiana* p. 74 fig., KOPEK 109.

†*Siphonodendron irregulare asiatica* p. 174 fig., SHIKAMA 178.

†*Spongophyllum sugiyamai* sp. n. p. 432 fig. Silurian Manchuria, YABE & EGUCHI Proc. Imp. Acad. Tokyo 21 9 1945 [wrongly referred to Yabe & Minato in Zool. Rec. 88 4 1951 p. 37].

†*Stenophyllum implicatum* p. 113 fig., RICHTER 167.

†*Streptelasma holtedahli* p. 146 fig., *curvatum* p. 147 fig., *compactum* p. 149 fig., spp. n. Ordovician Norway, ? *curvatum* p. 148, sp. p. 150 fig., HILL Norsk geol. Tidsskr. 31 1953.

†*Stylina* discussed p. 144, sp. p. 144, *motonobui* p. 145 fig., *mabuii* p. 145 footnote, spp. n. Jurassic Japan, EGUCHI J. geol. Soc. Japan 49 583 1942.

†*Synaptophyllum* discussed p. 16, *soshkinae* sp. n. p. 16 fig. Devonian Poland, RÓZKOWSKA Palaeont. polon. 5 1953.

†*Thamnasteria jezoensis* nom. nud. p. 70, EGUCHI 63.—*T.* sp. p. 5, WELLS 206.

†*Thamnophyllum* discussed p. 13, *monozonatum* p. 14 fig., RÓZKOWSKA 170.

†*Thecocyathus microphyllus* p. 259 fig. (Conspectus pp. 91, 95), MOENKE 127.

†*Thecosmilia variabilis* sp. n. p. 174 fig. Triassic Hungary, KOLOSVÁRY Föld. Közl. Budapest 83 (4-6) 1953.

†*Thysanophyllum asiaticum* p. 174 fig., SHIKAMA 178.

†*Triplophyllites* (*Triplophyllites*) *per-similis* p. 14 fig., *T. (Homalophyllites) paucinctus* p. 15 fig., *subcrassus* p. 16

fig., spp. n. Carboniferous Arizona, EASTON & GUTSCHICK Bull. S. Calif. Acad. Sci. 52 1 1953.

†*Trochocyathus majzoni* nom. nov. (for *affinis* Reuss 1871 ~~non~~ Reuss 1870) p. 412 fig. Miocene Hungary, HEGEDŰS Földt. Közl. Budapest 82 10-12 1952.—*T. affinis* ? p. 257, MOENKE 127.

†*Trochosmilia* sp. p. 185 fig., MAKSI-MOVIĆ & MARKOVIĆ 122.

†*Tryplasma* discussed p. 151, *basalti-forme* p. 152 fig., *brevikense* p. 153 fig., spp. n. Ordovician Norway, HILL Norsk geol. Tidsskr. 31 1953.—*T. higitizawaensis* p. 172 fig., SHIKAMA 178.

Tubastraea tenuilamellosa p. 110 fig., *aurea* p. 110 fig., all other spp. probably varieties of *aurea* p. 110, BOSCHMA 22.

†*Turbinolia* (?) sp. p. 75, KOPEK 109.—? *T.* sp. p. 14, HASSAN 82.

†*Verbeekiella* [as *Verbeeckiella* (sic)] *japonicum* sp. n. p. 161 fig. Permian Japan, YABE & MINATO Proc. imp. Acad. Japan 20 3 1944.—*V. japonicum* p. 176 fig., SHIKAMA 178.

†*Wentzelella timorica* p. 105 fig., MINATO 124.—*W. timorica* p. 100 fig., *iwaizakiensis* p. 176 fig., SHIKAMA 178.

†*Wentzelloides maiyaensis* p. 176 fig., SHIKAMA 178.

†*Yuanophyllum kansuense* p. 174 fig., SHIKAMA 178.

Zoanthus tubicola, *cabindaensis* p. 66, spp. n. Angola, PAX Arq. Mus. Bocage 22 1951 [? 1953].

†*Zonodigonophyllum bipartitum* p. 113 fig., RICHTER 167.

CTENOPHORA

NONE

INCERTAE SEDIS

†*Chaetopsis crinita* p. 118 fig., SHIKAMA 178.

†*Khmeria problematica* p. 98 fig., SHIKAMA 178.

†*Palaeoaplysina laminaeformis* [? hydrozoan or sponge] p. 215 fig., YABE 212.

†Problematical structures pp. 116, 118 fig., YABE 211.